

Volume 9

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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE WILLIAM H. ALSUP

ORACLE AMERICA, INC.,	)	
	)	
Plaintiff,	)	
	)	
VS.	)	No. C 10-3561 WHA
	)	
GOOGLE, INC.,	)	
	)	
Defendant.	)	San Francisco, California
	)	April 26, 2012

**TRANSCRIPT OF PROCEEDINGS**

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(Appearances continued on next page)

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**CATHERINE LACAVERA**  
Google Corporate Representative

P R O C E E D I N G S

APRIL 26, 2012

7:30 A.M.

(The following proceedings were held in open court,  
outside the presence of the jury.)

**THE COURT:** Good morning. Everyone please have a  
seat. Let me -- do you have issues to bring up this morning?

**MR. BABER:** Yes, Your Honor.

**MR. JACOBS:** We have some depositions that we'll need  
some rulings on. I have one for you now, and one we just got  
comments back from Google on. The one I have for you now is  
Agarwal.

**THE COURT:** How soon do you need the response?

**MR. JACOBS:** We would play them tomorrow in our case.

**THE COURT:** All right. I'll look at it today  
sometime.

**MR. JACOBS:** And the one that's coming -- we'll get  
it to you this morning -- is Gupta.

**THE COURT:** All right. What else?

**MR. JACOBS:** I think that's all of the housekeeping.

We got the brief last night from Google on ownership,  
among other things, in the Rule 50 motion. I would like to  
just recount for the Court some of the very recent history on  
this topic.

So when Mr. Baber raised this issue with you, he said

1 we could only identify the registration as a collective work  
2 registration in the last week or so, I understood him to say.

3 In fact, in our March 9th brief, we wrote as follows:  
4 As noted above -- this is at page 4 of Oracle's March 9, 2012,  
5 brief regarding copyright issues.

6 "As noted above, Oracle's copyrights in J2SE  
7 5.0 materials were registered with the U.S.  
8 Copyright Office under registration numbers  
9 TX 6-066-538 and TX 6-143-306.

10 "J2SE was registered as a collective work  
11 comprising prior works by Sun, licensed in  
12 components and new and revised computer code  
13 and accompanying documentation and manuals."

14 Then there's a citation. Then the registration form  
15 lists Sun's copyright registrations for earlier version.

16 So we first flagged this as a collective work more  
17 than a month before trial started. Then in the trial itself,  
18 you'll recall that Mr. Reinhold was on the stand and the  
19 question of group participation in the creation of JSRs came up  
20 and Your Honor had a question about that.

21 So at a break, I said the following:

22 "Your Honor, I see a potential for confusion  
23 in a complex area about a matter of law, and  
24 so at some point we may be asking you for an  
25 instruction on this.

1           **"THE COURT:** What is that?"

2           Myself:

3           "Google's questioning may suggest to the jury  
4           a dispute about ownership of the 37 API  
5           packages that are in dispute here. The jury  
6           confuses the percentage of the packages or  
7           classes or whatever that were developed by  
8           third parties.

9           "There is no ownership dispute here. There  
10          is no question that Oracle has the right as  
11          matter of ownership to assert the copyrights  
12          at issue here."

13          Mr. Purcell, on behalf of Google:

14          "Your Honor, we are not disputing ownership  
15          of the copyrights. We're responding to a  
16          request from the Court regarding the  
17          involvement of other members in the community  
18          in the Java Community Process and API  
19          development."

20          So we had a -- this very issue raised in our brief a  
21          long time ago now. And in trial, when the witness was on the  
22          stand, who talked about the process -- and I specifically said,  
23          is ownership in contest?

24          And Google's counsel stood before this Court and  
25          said, "We are not disputing ownership" here.

1 I submit, Your Honor, that this issue has been raised  
2 late, possibly a clever legal argument that just came to them.  
3 But at this point in the trial, we should -- having managed our  
4 time very carefully, we should not be put to proof on ownership  
5 when Google explicitly, in the relevant context of the trial,  
6 said we're not disputing ownership.

7 **MR. BABER:** May I, Your Honor?

8 **THE COURT:** Mr. Baber.

9 **MR. BABER:** Yes, Your Honor.

10 Your Honor, when we spoke about this issue yesterday,  
11 I said to Your Honor, we do not dispute that they own these two  
12 copyright registrations. Period. Full stop. We have never  
13 disputed that.

14 The question is the question of law as to what those  
15 certificates cover, what they protect. And we filed a brief  
16 last night, also on the copyright issues. And I'm referring  
17 now to our document entitled "Google's April 25 Copyright  
18 Brief."

19 This is not a new issue in the least. In the  
20 pretrial order that we filed back last October, the parties  
21 identified as joint issues for the Court issues of law to be  
22 decided that included, and I quote:

23 "Whether by virtue of the copyright  
24 registrations that they're relying on, Sun  
25 registered its copyrights in the API design

1 specifications and its copyrights in the 12  
2 code files."

3 **THE COURT:** What number is that?

4 **MR. BABER:** That's at the pretrial order, docket 525,  
5 at page 10.

6 We specifically flagged this issue jointly in the  
7 pretrial order. The issue about whether they own those  
8 specific 12 code files is exactly the 103(b) issue.

9 **THE COURT:** I'm on page 10 of that document. Which  
10 paragraph?

11 **MR. BABER:** There's a list of joint -- should be  
12 identified as issues of law to be decided. I don't know the  
13 numbers, Your Honor, but there's two of them that say, "Whether  
14 by virtue of the copyright registrations," et cetera.

15 **THE COURT:** Yes.

16 **MR. BABER:** Okay. That second issue about whether or  
17 not these copyrights give them any protection in the underlying  
18 individual code files, that is exactly the 103(b) issue that we  
19 discussed yesterday. We've known about this issue for a long  
20 time. It's not new.

21 But just to fill out a little bit the sequence --

22 **THE COURT:** Yesterday you were telling me that the  
23 first time the word "collective" was used was a week ago, and  
24 now Mr. Jacobs read to me something from more than a month ago.

25 **MR. BABER:** What Mr. Jacobs left out though, Your

1 Honor, is, yes, they have from time to time during the case  
2 made noise that, well, they think it's a collective work. And  
3 we've said we don't agree. But there's never been an issue  
4 about it.

5 In their original trial brief, I believe filed in  
6 March, they said it's not a compilation. So we thought that  
7 was the end of it.

8 We figured, look, it's their case. They're going to  
9 proceed however they like. They're either gonna claim it's a  
10 compilation or a collective work, and then they'll prove the  
11 authorship of the underlying components. Or they're not, and  
12 they'll try and prove ownership of them some other way, either  
13 trying to claim there's protection for individual files with  
14 some other registrations, etc.

15 Then we got to trial. In the middle of trial, having  
16 said a month ago they're not compilations, now they say, oh,  
17 well, they are collective works after all.

18 So all we've done, Your Honor, throughout this case  
19 is to try and preserve our rights with the legal issues that  
20 we've seen coming based on how they've been characterizing  
21 things from time to time.

22 This isn't the only issue like this. I mean, there  
23 have been different articulations of what their theory is at  
24 different points in time.

25 And so this is an issue that's been out there all



1 along. We've known it's an issue. We've assumed they've known  
2 it's an issue. The pretrial order reflects it.

3 And when we saw them coming forward and saying  
4 "collective work," we assumed they were going to put in the  
5 proof that that requires them to do. And they didn't do that.

6 But the issue, just to be clear, we do not dispute  
7 that they own those two registrations. The question is: What  
8 do they cover?

9 **THE COURT:** All right. Mr. Jacobs, what do you say  
10 to that?

11 **MR. JACOBS:** Now, I think Google's counsel is  
12 unintentionally confusing the issues.

13 When -- when Google's counsel said, we do not dispute  
14 ownership in the context of that discussion, first of all, it  
15 was a clear and unambiguous, We are not disputing ownership.

16 **THE COURT:** Well, what counsel just said is ownership  
17 of the registered work. Begging the question, how far does the  
18 copyright protection extend. So if it's a -- if it is a  
19 collective work, then you could still own the collective work  
20 but not necessarily every module that is in there; I mean, in  
21 other words, authorship of every module that's in there.

22 So I don't see what Mr. Purcell said the other day as  
23 inconsistent with what Mr. Baber just said.

24 **MR. JACOBS:** Mr. Baber used his words very carefully.  
25 He said -- he said, we are not contesting ownership of the

1 registration. Ownership of the registration isn't the issue.  
2 The issue is ownership of the work. The registration is  
3 evidence.

4 **THE COURT:** Yes, registered work, yes.

5 **MR. JACOBS:** Well, but that's what Mr. Purcell said,  
6 "We are not disputing ownership."

7 And it was in the context of Mr. Reinhold being  
8 examined about participation in the Java Community Process and  
9 whether Sun now Oracle owns the underlying works, the packages  
10 and their associated APIs that we're asserting here. And  
11 Google's counsel said we're not disputing ownership.

12 Now, if we're clear on ownership and we're only  
13 addressing the affect of the registration on our ability to  
14 sue, that is a very different question. Registration is a  
15 formality. It is no longer even jurisdictional in the wake of  
16 recent Supreme Court authority.

17 The question of what the copyrights cover is a  
18 very -- is a tangential question, the question of what is  
19 copyrightable. We no longer need a presumption of ownership  
20 because Google has said we're not challenging ownership.

21 If what we're talking about is can we sue on  
22 underlying works that are part of the collective work, then we  
23 have boatloads of authority for Your Honor that we can do so,  
24 so long as there is no dispute about ownership.

25 Now, if we have to put on an ownership case, we can

1 do that. We'll need more time. It's a big surprise. It's a  
2 bunch of paper and evidence and testimony. But we can do that.  
3 But Google unambiguously admitted that there's no dispute about  
4 ownership. And that's all I need to accomplish in this ten  
5 minutes.

6 **THE COURT:** When did that witness testify? That was  
7 mister who?

8 **MR. JACOBS:** Reinhold.

9 **THE COURT:** He was the one, two, three, four, five,  
10 sixth -- sixth witness. So up to that point was ownership in  
11 play but it was given away at that point? Is that your  
12 theory --

13 **MR. JACOBS:** I don't think there's been a --

14 **THE COURT:** -- in mid trial, that there -- it's kind  
15 of like the argument you're making against Google, that how  
16 could they have relied on something when it came out halfway  
17 through the process or after the trial had begun?

18 **MR. JACOBS:** I still don't exactly know what their  
19 ownership issue is.

20 Again, their focus is on the registration. And what  
21 the registration allows us to do in this lawsuit by way of  
22 filing suit, by way of claiming infringement, it's a very --  
23 they are very different questions.

24 We are not claiming infringement here except as we  
25 have stated the claim. So we're not claiming that the -- we

1 don't need the registration to assert our infringement claims  
2 here for anything other than what we have relied on. That's  
3 going to sound a little circular.

4           They can't -- by virtue of registering it as a  
5 collective work -- and we'll brief this to Your Honor; there's  
6 a ton of cases -- we can sue on both the work as a whole and  
7 the underlying components of the work. And that's all we need  
8 to do on the basis of registration. That's all we need.

9           **THE COURT:** Wait, before Mr. Baber comes back.

10           It says in 103(b), the copyright in a compilation or  
11 derivative work extends only to the material contributed by the  
12 author of such work as distinguished from the preexisting  
13 material.

14           So let me give you a hypothetical for second. Let's  
15 say that a third-party developed one of these API packages and  
16 donated it to the -- to Java, in whatever way they do that, so  
17 that the actual author is somebody not an employee of Sun or  
18 Oracle.

19           Now, it could be, possibly, that there is an  
20 assignment document somewhere that that person signs that says,  
21 I hereby give you all of my right and title to this module, so  
22 that Sun could sue on that. But we haven't seen that yet.

23           And if the -- if the -- under this law, if it is a --  
24 if this is simply a collection of modules or API packages that  
25 have been assembled by Java in a, you know, clever, important

1 way, but nonetheless each chapter is written by somebody else  
2 or some of the chapters are written by somebody else, then I  
3 can -- certainly, I can see you suing on the overall SSO for  
4 the entire 166 API packages.

5 But I question whether or not you would be able to  
6 sue for the SSO on a single API package that Sun did not write,  
7 unless somewhere in the files it has an assignment document  
8 from the person who could sue saying, Sun, you could sue.

9 So I think that's -- maybe I'm not analyzing this  
10 right, but that's -- I'm not talking about standing. I'm  
11 talking about how far does the copyright extend?

12 **MR. JACOBS:** And so we've got to be really precise  
13 here. When Google said we're not contesting ownership, they  
14 admitted that they're --

15 **THE COURT:** Just a second. That was a statement made  
16 by Mr. Purcell that is ambiguous in the context. If that is  
17 your case, you're not going to get very far with me.

18 **MR. JACOBS:** Okay. Then --

19 **THE COURT:** Because that came up in the fifth witness  
20 in the pretrial and you could not have possibly gone into this  
21 trial relying upon that statement.

22 **MR. JACOBS:** No, we were relying on the fact that  
23 Google has never challenged our ownership of the 37 packages.

24 **THE WITNESS:** Well, it says so right here in your  
25 joint statement that ownership is in contest.

1           **MR. JACOBS:** I don't think it says "ownership" is in  
2 contest.

3           **THE COURT:** It says right here, number 9, page 15,  
4 "Whether Oracle is the current owner of rights, title and  
5 interest in the Java-related works."

6           Right here. See? That's in your joint statement.  
7 So that -- now, maybe that meant something else to both sides  
8 and it doesn't -- but it does say "owner."

9           So I -- I'm not going to decide this right now. I  
10 want to give you the full opportunity to brief it and do  
11 whatever you would like to do on it. But I -- I see the point  
12 that Mr. Baber is making.

13           And I am just guessing at this because Sun was a  
14 excellent company and they have excellent counsel, and my guess  
15 is that somewhere there is a document that would fill this  
16 possible gap. Maybe. Maybe not.

17           But it would be an assignment from the author to Sun  
18 saying, I give you all my right, title and interest in  
19 copyright and everything else in this, and you can sue all  
20 away.

21           Now, Mr. Baber, wouldn't that solve the problem?

22           **MR. BABER:** It would, Your Honor, if -- if, Your  
23 Honor, there were assignments -- and, technically, the statute  
24 wouldn't cover an assignment, but we'd be okay with that.

25           But we know from the record and we know from our

1 experience they can't have assignments for all of them.

2 **THE COURT:** Why not?

3 **MR. BABER:** Because we started out with 51 packages  
4 and the reason why we have 37 now is we showed them they don't  
5 own 14 of them. There's at least three that Professor Doug Lee  
6 wrote, some important ones: java.util.Concurrent.  
7 java.util.Concurrent.autonomy. And there's a third one that  
8 goes with it. He wrote them --

9 **THE COURT:** Those are in the 14 or the 37?

10 **MR. BABER:** Those are in the ones they dropped,  
11 because Professor Lee wrote them and then he explicitly put  
12 them in the public domain when he gave them to Java.

13 He said, You can put them in Java, you can make them  
14 part of your platform, but I'm dedicating them to the public so  
15 everyone can use them.

16 So, clearly, as to those three --

17 **THE COURT:** Sounds like you didn't find public  
18 dedications for the other 37 though.

19 **MR. BABER:** No. We found they were owned by other  
20 third parties. They were owned by somebody. They were owned  
21 by IBM, et cetera.

22 **THE COURT:** Did those third parties assign it over to  
23 Sun?

24 **MR. BABER:** No, Your Honor.

25 The way the Sun Java Community Process works, as I

1 understand it, is when you have something you want to  
2 contribute to Java, if you're a third party, you don't have to  
3 assign it to them. All you have to do is give them the right  
4 to include it in Java.

5 In other words, you can keep it, you can say, I still  
6 own it, but for the good of the community I'm going to give it  
7 to you, Sun, and you can put it in the platform so everybody  
8 else can use it and learn these new APIs and have them be part  
9 of the platform. But I own it.

10 All you're doing is basically distributing it on your  
11 terms.

12 **THE COURT:** I want to ask you one other question on  
13 your view of this. When someone contributes, like you've just  
14 suggested, do they contribute a method? Do they contribute a  
15 class? Do they contribute an entire API package? How does  
16 that part work?

17 **MR. BABER:** It's all over the lot.

18 It's my understanding that, yes, sometimes someone  
19 contributes an entire package. The three examples from  
20 Professor Lee, java.util.Concurrent, that's a whole package,  
21 with two subpackages that go with it. So that's three packages  
22 from Professor Lee.

23 Other times -- and it depends. You've heard about  
24 this JSR process, where new things are added to Java. I  
25 believe a JSR process can be for a new package; it can be for a



1 new class within a package that already exists; it can be for a  
2 method within an existing class. It just depends on what new  
3 thing somebody wants to create and where it should go within  
4 the platform. So it can happen at any of those levels.

5 **THE COURT:** Let me ask a different but very related  
6 question, but this I wanted to pose to Mr. Jacobs, and then you  
7 can respond, Mr. Baber.

8 I confess I easily could miss things in the record in  
9 this gigantic case, so I -- this is a question, and it is not  
10 any kind of a ruling, but it is related to this point of  
11 whether or not -- whether or not Oracle can sue on the 37 API  
12 packages individually as to their SSO.

13 When we started this trial, I was under the  
14 impression that your theory was the overall 37 in some kind of  
15 intricate interrelated web of 37 and they interconnected. I  
16 remember you going on and on about how they were  
17 interconnected.

18 I did not realize that you were also going to contend  
19 that each individual package, standing alone and without regard  
20 to the others, also had an SSO and that that SSO was, in turn,  
21 infringed so that it became 37 issues as opposed to one larger  
22 issue.

23 Now, just as a footnote, as I understand the  
24 ownership issue that's being raised or the scope issue that's  
25 being raised, that issue in no way affects Sun's and Oracle's

1 ability to sue on the larger question of the overall  
2 organization. Correct?

3 **MR. JACOBS:** I think so. I'm still -- honestly, Your  
4 Honor, I'm not quite clear.

5 **THE COURT:** Well, let me finish my point.

6 Mr. Baber, am I correct?

7 **MR. BABER:** Correct.

8 **THE COURT:** All right. So in the special verdict  
9 form that I sent out, the general purport of question number  
10 one, there's no doubt that will go to the jury in some form.  
11 What we're arguing over is number two.

12 Now, the ownership issue has been brought up in that  
13 connection, but I'm now raising a separate point, which is, I  
14 have gone back to try to find where it is that you, including  
15 the -- the joint pretrial order.

16 Where is it that you said that you wanted to put to  
17 the jury or try that each individual one constitute -- each  
18 individual API package constituted an infringement, SSO had to  
19 be decided by the jury as to each one individually?

20 And in this regard I note that the expert report, at  
21 least whenever he testified, he didn't go down each one  
22 individually. So I have the -- I have the suspicion that this  
23 entire case was launched and teed up to be tried on the 37 as a  
24 group, and it's only as the case has kind of gone along at  
25 trial that we've morphed into the possibility that the

1 individual APIs would be tried.

2           So I ask you, where, before we started the trial, in  
3 the joint pretrial statement, was this issue of the individual  
4 API packages set forth?

5           **MR. JACOBS:** I don't recall, Your Honor. What I do  
6 think is that at least that much of what you just said is  
7 correct, that it really arose as Google focused on the question  
8 of the work as a whole.

9           And as we started to get clearer on the question of  
10 the work as a whole, we -- we saw the importance of asserting  
11 this individually and collectively. But I would like to go  
12 back to the record and see what we said.

13           **THE COURT:** All right. I want to give you that  
14 opportunity, but you -- if we were to revert -- I think is the  
15 word -- revert back to the 37 -- now, I will say this. I'm  
16 going to give you my -- I'm jumping ahead a bit.

17           I think for the group as a whole, it's the 37 versus  
18 whatever other -- the entire group of API packages not in  
19 Android but in Java and the copyrighted work.

20           So if there were 166, then it's 37 out of that 166.  
21 That's the work as a whole, the overall structure. I don't  
22 think you can -- you can surgically remove the 37 and ignore  
23 the rest of the API packages from the copyrighted work.

24           So the basic question we would put to the jury on  
25 question number one is whether or not the SSO for the 37 is

1 stolen from Java, the 166, or whatever it was. I think one of  
2 them was less than that and one of them was -- but you know the  
3 numbers.

4 If we get down to the individual API level, then I  
5 think the proper comparison is just against that one API  
6 module, that one package. So it would be a package-to-package  
7 comparison. But it would be the SSO within the -- within it.  
8 But I question whether or not that issue was an issue we agreed  
9 to try in this case.

10 **MR. JACOBS:** Understood, Your Honor. We'll check  
11 that out.

12 **THE COURT:** And if I'm right about that, then we  
13 never even get to this other issue of -- the ownership, at  
14 least the scope. We don't get to the collective -- the  
15 collective issue. That's the way I should be putting it.

16 **MR. BABER:** Your Honor.

17 **THE COURT:** Yes, sir.

18 **MR. BABER:** Just to clarify, first of all, I think  
19 the clearest place to go look at whether or not there was an  
20 issue raised about the individual packages, right before the  
21 trial you'll recall you asked the parties to submit the  
22 statement of what are the issues that we're going to try. And  
23 Oracle filed its statement on April 12th, and it listed  
24 eight -- seven different items. And there was no item on there  
25 for individual API packages.

1           **THE COURT:** Well, how was it worded?

2           **MR. BABER:** Number 1 is about the documentation.

3           Number 1 is the documentation for the 37 API packages, all of  
4           them together, 103,000 lines of code. So that's clearly all 37  
5           together.

6           **THE COURT:** By the way, on that, I think the  
7           documentation is not as the overall. I think it's a one-to-one  
8           for every -- you look at the documentation for this API  
9           package, you look at that one over here. And for the  
10          documentation, I think it's got to be one to one.

11          The SSO is a concept that's only come up in the  
12          compilable code context. For the documentation, we're talking  
13          about a literary work, so we don't even have SSO as a concept.  
14          So you're going to lose on the idea that you get the big fat  
15          manual to compare against.

16          **MR. BABER:** Oh, I hear Your Honor. And we've said  
17          our position on that. I'm not going to just (unintelligible)  
18          as to that.

19          But that crystallizes this issue about the collective  
20          work. If they want to sue on the documentation for a package  
21          and they don't own the package, how can they sue for  
22          infringement on the documentation for that package? That's the  
23          collective work issue.

24          The collective work issue is framed the clearest with  
25          the 12 so-called copied files. I assume they don't want to

1 argue that at that one you should just compare the file to the  
2 file.

3 Well, if they don't own the file, how can they assert  
4 a claim based on the file to the file? That's where it becomes  
5 very granular, very specific, and why the collective work issue  
6 matters so much.

7 I was, candidly, very surprised to hear Mr. Jacobs  
8 say, well, it's a technicality; it's tangential.

9 The issue of the scope of the copyright is  
10 fundamental to this case and what they can even assert.

11 So, just to continue on, the seven they identified  
12 was documentation of all 37.

13 Number 2 is selection, arrangement, and structure of  
14 all API elements, including names of the Android class library  
15 source code and object code that implements the 37 packages.  
16 All of it for the 37 packages. That was number 2. That's  
17 becomes the SSO claim.

18 Number 3 is the declarations in the source code where  
19 we use the method signature when we implement. That was number  
20 3.

21 Number 4 was the source code and object code that  
22 implements the packages. That was a derivative work issue you  
23 raised yesterday; can the code infringe the English language  
24 description.

25 And then all that was left were the copied files; the

1 Tim sorts, the eight test files, and the two files with  
2 comments.

3 That was their statement of the seven things they  
4 were trying to prove in this trial. There's not a one about  
5 individual API packages.

6 **THE COURT:** Did you, yourself, have anything that  
7 would have placed in issue your own statement?

8 **MR. BABER:** Absolutely not, Your Honor.

9 In fact, the way we did our statement was we  
10 basically said, look -- and we went back and forth with them on  
11 this. We tried to agree with the statement. And they said,  
12 we're the plaintiff; we have a right to say what we're  
13 asserting; you got to use ours.

14 So we've massaged it a little bit, but we certainly  
15 didn't add any claims for them to assert. So this is very  
16 recent in terms of what their claims are.

17 I don't know if you wanted to hear any more on the  
18 issue of the --

19 **THE COURT:** Well, I -- I think we've said enough now.  
20 And I'm not making any rulings. We're just going to keep  
21 rolling along with the evidence. But I would like to see what  
22 the brief is from Oracle on this point. And if you need to  
23 reopen to put in evidence on this point, I'm going to let you  
24 do that, but it would still have to come out of your time.

25 All right. Where are we on the evidence now?

1           **MR. BABER:** Your Honor, did Mr. Jacobs -- I have two  
2 things before the jury comes in.

3           **THE COURT:** We've run out of time. How long will it  
4 take to go into that?

5           **MR. BABER:** I think about two minutes or three  
6 minutes, Your Honor.

7           **THE COURT:** Is it something that's going to come up  
8 right away?

9           **MR. BABER:** No, it won't. It can hold.

10          **THE COURT:** Let's hold it for a bit. Is there  
11 something --

12          **MR. VAN NEST:** Take the typo. We can --

13          **MR. BABER:** One is just an apology to the Court, Your  
14 Honor. We filed a brief last night. It's our copyright brief.  
15 And I may have violated what Mr. Bornstein said is the rule of  
16 least astonishment. There's a typo in there I just want to  
17 bring to the Court's attention.

18          **THE COURT:** I did see that.

19          **MR. BABER:** Okay. You know what typo I'm talking  
20 about? In the heading on the first section.

21          **THE COURT:** The --

22               (Simultaneous colloquy between the Court and  
23 Counsel.)

24          **MR. BABER:** Oh, no, that's not the one. The first  
25 section in the brief -- the first section in the brief is



1 entitled:

2 "The Court should instruct the jury that the  
3 SSO is copyrightable."

4 There should be a "not" in that sentence.

5 (Laughter)

6 **MR. BABER:** And if you'd like us to substitute a copy  
7 with that corrected, we'd be happy -- it's in the table of  
8 contents and then the heading on page 1. We apologize to the  
9 Court, Your Honor. That's on me.

10 **THE COURT:** I'm holding you to that.

11 (Laughter)

12 **MR. VAN NEST:** Your Honor, I was assigned to  
13 proofread these last night. That's what happened.

14 **THE COURT:** That's the problem.

15 All right. Where are we -- have we got a witness on  
16 the stand? I have forgotten.

17 **MR. VAN NEST:** We're calling one first thing.

18 **THE COURT:** Who that is going to be?

19 **MR. PURCELL:** Craig Gering, Your Honor.

20 **THE COURT:** Let's bring the jury back and roll right  
21 along.

22 **MR. VAN NEST:** Could I have one minute, Your Honor?

23 **THE CLERK:** All rise.

24 (Jury enters at 8:04 a.m.)

25 **THE COURT:** Welcome back. Please, have a seat.

1 All right. Google may call its next witness.

2 MR. PURCELL: Your Honor, Google calls Craig Gering  
3 to the stand.

4 THE COURT: Mr. Gering, please stand and raise your  
5 right hand.

6 CRAIG GERING,  
7 called as a witness for the Defendant herein, having been first  
8 duly sworn, was examined and testified as follows:

9 THE WITNESS: I do.

10 THE CLERK: Okay. Thank you.

11 THE COURT: Thank you. This microphone moves all  
12 around. Up to get about this close.

13 THE WITNESS: Okay.

14 THE COURT: Even closer. Why don't you pull it  
15 closer to you.

16 THE WITNESS: How's that?

17 THE COURT: Perfect.

18 Go ahead, counsel.

19 DIRECT EXAMINATION

20 BY MR. PURCELL:

21 Q. Good morning, Mr. Gering.

22 A. Good morning.

23 Q. Mr. Gering, were you an employee of Sun Microsystems from  
24 about 1990 until Oracle bought Sun in 2010?

25 A. That's correct.

1 Q. And then you worked for Oracle for about a year after  
2 that?

3 A. Right.

4 Q. And you left Oracle in early 2011?

5 A. Yes.

6 Q. When you left Oracle, you had worked for Sun or Oracle for  
7 about 21 years?

8 A. That's correct.

9 Q. I'd like to focus on the time period that's relevant to  
10 this case.

11 In about 2006, you took over management of  
12 engineering services for the Java licensing organization for  
13 mobile and embedded devices; is that correct?

14 A. Yes, there is engineering services and Java licensing  
15 engineering. There were two teams within that organization.

16 Q. And you were part of the management team in both of those  
17 organizations?

18 A. Yes.

19 Q. And you were in those positions until Oracle acquired Sun  
20 in January 2010?

21 A. Yes.

22 Q. Mr. Gering, this is a timeline that we've been using to  
23 orient the jury and witnesses in the case. Can you see it  
24 okay? We may be pointing to it from time to time.

25 A. Okay.

1           **MR. PURCELL:** May I approach, Your Honor?

2           **THE COURT:** You may.

3 **BY MR. PURCELL:**

4 **Q.** Mr. Gering, I just handed you Trial Exhibit 2053, which is  
5 in evidence.

6           **MR. PURCELL:** If we could get that on the screen and  
7 published to the jury.

8           (Document displayed.)

9 **BY MR. PURCELL:**

10 **Q.** This is an e-mail you received on October 4, 2006?

11 **A.** Yes.

12 **Q.** And parts of this e-mail relates to a company called  
13 Savaje, correct, S-a-v-a-j-e?

14 **A.** Yes.

15 **Q.** Now, in October 2006, Savaje was a small company that had  
16 been trying to build a mobile phone operating platform; is that  
17 right?

18 **A.** Yes, I believe they were trying to deliver a phone and a  
19 phone platform to market.

20 **Q.** And at some point after this Sun, actually bought Savaje,  
21 correct?

22 **A.** Yes.

23 **Q.** And Sun bought the entire company, its personnel, its  
24 technology; is that right?

25 **A.** Yes, what was left of it at that time. It had shrunk over

1 a period of time between this e-mail and when it was purchased.

2 Q. So this e-mail is in October of 2006. Do you know when on  
3 the timeline about Sun acquired Savaje?

4 A. I don't recall when that was.

5 Q. Do you recall whether it was before the first Android  
6 phone was released in October of 2008?

7 A. I do not.

8 Q. All right. Now, have you ever heard the term "full stack"  
9 with respect to mobile operating platforms?

10 A. Within Sun at the time, there were multiple terms used to  
11 refer to building a complete mobile platform. "Full stack" was  
12 one of them. "Vertical platform" was another.

13 Q. Now, a full stack or a vertical platform, that would  
14 include multiple layers of software, correct?

15 A. Yes. It was used in comparison to the Java being a  
16 horizontal play across multiple devices and platforms.

17 Q. So Java wasn't a full stack, correct?

18 A. At that time, no, Java was a horizontal approach across  
19 multiple platforms. This included everything JavaPlus, all the  
20 drivers you need to talk to the hardware and operating system.  
21 Those kind of things which weren't part of Java.

22 Q. So in contrast to Java, Android -- the Google platform  
23 that eventually came out, Android was a full stack, correct?

24 A. Uhm, in how -- how it was referred to in that time, my  
25 understanding is yes.

1 Q. And Apple's iPhone operating system, that was also a full  
2 stack, correct?

3 A. Oh, it's a completely closed platform, so I don't know  
4 actually what's in there. But at the highest level of trying  
5 to get characterize those things, yes.

6 Q. At the time Sun bought Savaje, Sun didn't have a full  
7 stack on the market, correct?

8 A. That's correct.

9 Q. And it was your perception that Sun bought Savaje because  
10 of the business opportunity to provide a full stack vertical  
11 solution that included all the software one would need to run a  
12 phone, correct?

13 A. So I wasn't responsible -- I wasn't part of the team that  
14 purchased Savaje -- or my team did the evaluation of the  
15 technology, some of the engineers on my team. What Sun  
16 intended to do with the Savaje technology changed over time, so  
17 I don't know that I can comment fully on your question.

18 Q. But you do know that Sun, after acquiring Savaje,  
19 attempted to turn the Savaje technology into a full stack  
20 platform, correct?

21 A. I know there were plans to build a stack of some sort. I  
22 don't know if it was a completely full stack or a mostly full  
23 stack. That I don't know.

24 Q. The project that Sun pursued to build a stack from the  
25 Savaje technology, that was internally at Sun called Project

1 Acadia, correct?

2 **A.** So there were multiple projects with that basic idea of  
3 the vertical offering. It was called Acadia at one point in  
4 time, but it changed names a few times based on where it was in  
5 the organization, who it was reporting to. And I'm not sure if  
6 the feature sets changed or not with it. It was referred to  
7 with multiple names over a period of time.

8 **Q.** If Sun had gotten the Project Arcadia technology to  
9 market, it would have had a full stack on the market to compete  
10 with Android, correct?

11 **A.** I don't remember the exact details of what Arcadia was  
12 versus the initial Savaje acquisition, so I don't recall if  
13 that Arcadia Project was still a complete full stack or mostly  
14 a full stack. I just don't recall the details.

15 **Q.** Well, in any event, Mr. Gering, Sun never got any product  
16 to market incorporating the technology it purchased from  
17 Savaje, as far as you know, correct?

18 **A.** There were pieces of technology used for different  
19 customer engagements. So like -- and I'm not sure if -- I'm  
20 not sure if it was the technology or the people, but some of --  
21 at some point in time the people who came from Savaje worked on  
22 some customer engagements for different -- like for a Cisco  
23 phone, I believe.

24 So I don't know if technology actually made it into  
25 that device or not, or it was just the people working on that.

1           **MR. PURCELL:** I'd like to play from Mr. Gering's  
2 depo, at page 134, lines 19 to 25.

3           **THE COURT:** Hearing no objection, go ahead.  
4           (Video deposition clip played in open court; not  
5 reported.)

6           **MR. PURCELL:** Sorry, sorry, sorry. My mistake. Go  
7 ahead and play. 14, lines 19 to 25.

8           (Video deposition clip played in open court; not  
9 reported.)

10          **MR. JACOBS:** Your Honor, could we read on page 135,  
11 lines 1 -- in other words the next following package -- the  
12 next following passage to line 23.

13          **THE COURT:** How many lines?

14          **MR. JACOBS:** Twenty-three lines. I can actually skip  
15 ahead a little bit, and shorten it.

16          **THE COURT:** Go ahead. You do it yourself.

17          **MR. JACOBS:** Line 7 to line 23:

18          "Can you think, as you sit here today, of any  
19 benefit that the Savaje acquisition provided  
20 to Sun" --

21          **MR. PURCELL:** Your Honor, if he's going to read, for  
22 completeness he should read starting from line 1.

23          **THE COURT:** All right. Start from line 1.

24          **MR. JACOBS:** (As read:)

25          **"QUESTION:** And so looking at it from that



1 perspective with hindsight, do you perceive  
2 that the Savaje acquisition had any value to  
3 Sun, as you sit here today?

4 **"ANSWER:** I don't know.

5 **"QUESTION:** You don't have any opinion on  
6 that?

7 **"ANSWER:** I really don't know.

8 **"QUESTION:** Can you think, as you sit here  
9 today, of any benefit that the Savaje  
10 acquisition provided to Sun?

11 **"ANSWER:** So there were technology and  
12 people, skill set that was obtained; that is,  
13 I believe useful or was deemed useful.

14 **"QUESTION:** In what way was the technology  
15 that Sun obtained from Savaje useful to Sun?

16 **"ANSWER:** Specifically, I don't remember the  
17 details, but there was the general consensus  
18 that some of those assets could be applied  
19 into the Java platform or into Java or into  
20 the solutions business.

21 **"QUESTION:** You don't recall any specifics of  
22 how those Savaje technologies were possibly  
23 applied to the Java platform by Sun?

24 **"ANSWER:** I can't separate out the people and  
25 the technology in my head; so, no."

1           **THE COURT:** Thank you.

2           **BY MR. PURCELL:**

3           **Q.** Mr. Gering, as you sit here today, you're not aware of any  
4 product that Sun brought to market based on the technology Sun  
5 bought from Savaje, are you?

6           **A.** No.

7           **Q.** And, certainly, Sun never brought a full stack mobile  
8 operating platform to market based on Savaje technology,  
9 correct?

10          **A.** No, not to my knowledge.

11          **Q.** In fact, during your time at Sun, Sun never brought a full  
12 stack mobile operating platform to market at all, did it?

13          **A.** No.

14          **Q.** All right. So you were at Sun when Google released  
15 Android, correct?

16          **A.** Yes.

17          **Q.** And you were aware that Google had released Android?

18          **A.** I was aware of Android being in the marketplace. I don't  
19 know the exact date.

20          **Q.** After Google released Android, Sun made an effort to  
21 develop technologies that would work with Android, correct?

22          **A.** There was a point in time when we did technical  
23 explorations of various technologies that we had in-house, with  
24 Android, for different reasons.

25           **MR. PURCELL:** May I approach, Your Honor?

1           **THE COURT:** You may.

2           **MR. PURCELL:** I've just handed the witness Trial  
3 Exhibit 2052, which is in evidence.

4           (Document displayed.)

5 **BY MR. PURCELL:**

6 **Q.** Mr. Gering, this is a presentation on -- a Sun-formatted  
7 presentation titled "Java in Wireless. Business Review."

8           Do you see that?

9 **A.** Yes, I do.

10 **Q.** And your name is there on the front page, correct?

11 **A.** Yes, it is.

12 **Q.** It's dated March 16, 2009?

13 **A.** Yes.

14 **Q.** So just going by the timeline, that's after Google  
15 released the Android platform in October 2008?

16 **A.** Okay.

17 **Q.** Or March of 2009 is after October 2008?

18 **A.** Yes. I didn't know if it was a test.

19           **MR. PURCELL:** Could we turn to page 20 of the  
20 document.

21 **BY MR. PURCELL:**

22 **Q.** This page discusses something called Project Daneel.

23           Do you see that?

24 **A.** Yes, I do.

25 **Q.** And Project Daneel was also known inside Sun as Project

1 Sun Droid; isn't that right?

2 **A.** There was a Project Sun Droid. There was a project  
3 Daneel. They had a lot of the same/similar characteristics. I  
4 don't remember if they were exactly the same or not.

5 **Q.** All right. The idea of both Project Daneel and Project  
6 Sun Droid was to try to insert a Sun Java virtual machine into  
7 the Android platform in place of Google's Dalvik virtual  
8 machine; right?

9 **A.** Yes, Daneel project had two -- it had multiple phases.  
10 The first phase was to put Sun's VM and stack next to the  
11 Google stack that was (unintelligible) zero --

12 (Reporter interrupts.)

13 **A.** A Google VM. So it had two VMs on that stack. And that  
14 was called a Google stack approach.

15 And then the second -- the Phase 1, which was the  
16 second phase, was to actually replace the VM with Sun's VM.

17 **Q.** And that's reflected here on Trial Exhibit 2052, there's a  
18 reference to Phase Zero and Phase 1?

19 **A.** Yes.

20 **Q.** And there's also Phase 2, which is a full Linux platform.

21 Do you see that?

22 **A.** I do.

23 **Q.** So Project Daneel ultimately would have then evolved into  
24 a full stack? Is that how you understand that?

25 **A.** So my memory of Daneel is Phase Zero and Phase 1 were

1 fairly well defined. And Phase 2 was not as well defined, at  
2 least as I recall it.

3 Q. So as far as you recall, Sun never really developed a  
4 concrete definition of Phase 2, of Project Daneel?

5 A. More accurately, I think there were multiple definitions  
6 at that Sun Droid/Daneel time, but I just don't recall what  
7 were the contents of that bucket because we were focused -- the  
8 engineering team was focused on Phase Zero and Phase 1.

9 Q. With respect to Project Daneel, Sun got as far as  
10 developing a Phase 1 prototype of a Sun virtual machine running  
11 on the Android platform in place of the Dalvik virtual machine;  
12 is that right?

13 A. That's correct.

14 Q. But that was as far as it went, correct?

15 A. As far as I know.

16 Q. The product that was developed in Project Daneel, it never  
17 got to market, correct?

18 A. Correct.

19 MR. PURCELL: May I approach again, Your Honor?

20 THE COURT: You may.

21 BY MR. PURCELL:

22 Q. Mr. Gering, I've just handed you Trial Exhibit 2061, which  
23 is also in evidence.

24 MR. PURCELL: If we could blow up the top half of  
25 that. Thank you, Ben.

1 (Document displayed.)

2 **BY MR. PURCELL:**

3 **Q.** This is an e-mail that you sent to Vineet Gupta in January  
4 of 2009, correct?

5 **A.** Yes.

6 **Q.** And then the second half of the first page, that's an  
7 e-mail from Mr. Gupta to you a little bit earlier, correct?

8 **A.** I'm looking to see if it's to me. I see it's to a lot of  
9 people.

10 **Q.** You're right, Mr. Gering. I apologize. I withdraw that.

11 In any event, the e-mail that's at the bottom of the  
12 page is an e-mail from Mr. Gupta that became part of this  
13 e-mail chain, correct?

14 **A.** Yes.

15 **MR. PURCELL:** And if we can scroll down to the bottom  
16 half of the page.

17 **BY MR. PURCELL:**

18 **Q.** First off, Mr. Gupta, in January 2009, his job at Sun was  
19 negotiating Java licenses with manufacturers of mobile phones,  
20 correct?

21 **A.** He was the CTO of the -- he was in charge of the SEs and  
22 also a CTO for the embedded sales force. And so as part of  
23 that responsibility, he was involved in those discussions.

24 **Q.** Mr. Gupta is referring to, there in second paragraph:

25 "I have been getting several requests

1           regarding partnering with us to provide a  
2           Dalvik/Java ME combined platform. Samsung is  
3           really pushing for partnership discussions  
4           asap."

5           Do you see that?

6   **A.**    Yes.

7   **Q.**    And then in the next paragraph he refers to:

8           "Samsung, HTC, Sprint, TMobile, LGE, are the  
9           top candidates approaching us."

10          Do you see that?

11   **A.**    I do.

12   **Q.**    Those are some of the most prominent mobile phone  
13   manufacturers in the world; aren't they?

14   **A.**    Yes. They're a subset of them, yes.

15   **Q.**    Despite Mr. Gupta's optimism that there were these  
16   opportunities out there for Sun Droid with some of the most  
17   prominent mobile phone manufacturers in the world, Sun still  
18   never managed to get a Sun Droid product to market, correct?

19   **A.**    Sun did not bring in a Sun Droid product to market.

20           **MR. PURCELL:** May I approach one more time, Your  
21   Honor?

22           **THE COURT:** You may.

23   **BY MR. PURCELL:**

24   **Q.**    Mr. Gering, this document is Trial Exhibit 3508, which is  
25   in evidence.

1           **MR. PURCELL:** If we could get that up on the screen.

2           (Document displayed.)

3 **BY MR. PURCELL:**

4 **Q.** And, Mr. Gering, this is an e-mail that you received in  
5 October of 2009.

6           Do you see that?

7 **A.** Yes, I do.

8 **Q.** And it attaches a couple of presentations?

9 **A.** Yes, I see it.

10 **Q.** If we can just look at the first presentation right after  
11 the cover e-mail. It's called "OneJava market landscape  
12 discussion."

13           Do you see that?

14 **A.** I do.

15 **Q.** And if we could just go to the second page.

16           Looking at the second bullet point there, that says:  
17 "Sun's leadership around Java is perceived as  
18 stagnant, and Java is considered legacy."

19           Do you see that?

20 **A.** I do.

21 **Q.** First bullet under that says, "Stagnant innovation."

22           Do you see that?

23 **A.** Yes.

24 **Q.** The third bullet says:

25           "Framgmented between Java SE and Java ME, and



1           between Java ME mobile and TV and within  
2           mobile and TV."

3           Do you see that?

4   **A.**    I do.

5   **Q.**    Now, all of those references there to Java SE, Java ME,  
6   those are different Java platforms, correct?

7   **A.**    Java ME and Java SE were two different editions of Java.

8   **Q.**    And there's no mention on this slide of fragmentation of  
9   Java due to Android, correct?

10   **A.**    I don't see any.

11   **Q.**    This is just fragmentation within Sun's own Java products,  
12   correct?

13   **A.**    So I don't -- what I -- I don't recall fragmentation being  
14   used this way in my experience with ME.

15   **Q.**    Well, it's used that way on the slide, isn't it?

16   **A.**    I understand that.

17   **Q.**    And this is a presentation you received when you were at  
18   Sun, correct?

19   **A.**    Just because I received a presentation doesn't mean I  
20   agree with the contents of it.

21   **Q.**    Now, this is about a year after the first Android phone  
22   was on the market?

23   **A.**    Uhm, according to your timeline, yes.

24   **Q.**    Okay. And let's go to page 4, briefly.

25           **THE COURT:** What document number is this?

1 MR. PURCELL: 3508.

2 THE COURT: Is that already in evidence?

3 MR. PURCELL: It is.

4 THE COURT: Is it coming through in the jury box?

5 All right. Good.

6 MR. PURCELL: One more page, Ben.

7 BY MR. PURCELL:

8 Q. Now, this slide is titled "Modernize and unify Java."

9 A. I'm sorry, I must be on the wrong page.

10 Q. Page 4, Mr. Gering.

11 A. Okay.

12 Q. The title is "Modernize and unify Java"?

13 A. Yes.

14 Q. The second bullet is:

15 "Define one development model across all  
16 device types allowing for industry-specific  
17 customization without fragmentation of  
18 features."

19 Right?

20 A. I see that.

21 Q. And the first bullet under that is:

22 "Common-izing Java for Java ME and SE and  
23 EE"?

24 A. Yes.

25 Q. And that was the goal of the OneJava project, right, was

1 to commonize Java ME, SE, and EE?

2 **A.** So, I'm not familiar with what the term "common-izing"  
3 means in this case. I don't know what the author meant.

4 **Q.** All right. Sun never followed through on the OneJava  
5 project to merge the SE and ME platforms, correct?

6 **A.** So, there was a OneJava project that got to the point of  
7 proof of concept running on devices. And it was focused on  
8 providing one platform for the embedded world that -- at that  
9 time embedded devices had become more capable, more CPU, more  
10 memory, those kinds of things, so --

11 **Q.** Mr. Gering, I'm sorry, I'm on the clock.

12 Java ME and SE, Sun never did combine them in a  
13 product on the market prior to your departure from Sun,  
14 correct?

15 **A.** For the market, no.

16 **MR. PURCELL:** No further questions.

17 **THE COURT:** Thank you.

18 Cross-examination.

19 **CROSS EXAMINATION**

20 **BY MR. JACOBS:**

21 **Q.** Make your biography clear. Where do you work now, sir?

22 **A.** I'm a consultant for Fair Isaac Corp.

23 **Q.** And how long ago did you leave Sun?

24 **A.** January -- it was Oracle. January of 2011.

25 **Q.** And you were explaining the -- your use of the word

1 "fragmentation" in response to questioning from Google's  
2 counsel.

3 Can you continue your answer, please.

4 **A.** So, as I recall fragmentation within the ME world, it  
5 really referred to -- there's two distinct things I remember.  
6 One is hardware fragmentation, meaning that different devices  
7 had different capabilities and sometimes the software dealt  
8 with that properly and sometimes it didn't.

9 So, for example, like if a device had a point or it  
10 didn't --

11 **Q.** Slow down just a bit.

12 **A.** Sorry. So that was one type of fragmentation.

13 And the second type of fragmentation was  
14 incompatibility with bugs or performance problems between  
15 implementations by different vendors.

16 So the way Java came to market is different people  
17 built implementations of it. They licensed it, they built  
18 implementations of it. And sometimes there were bugs or  
19 performance issues which would cause some applications to work  
20 in one device but not in another.

21 So that's how I remember "fragmentation" being used.

22 **Q.** Did Java ME have a presence on smart phones when you were  
23 working in the Java ME world?

24 **A.** Yeah. Java ME was licensed by both Nokia, for their Series  
25 60 devices, as well as RIM, for their Blackberry devices.

1           **MR. JACOBS:** Thank you, sir.

2           **THE COURT:** Anything more?

3           **MR. PURCELL:** Nothing further, Your Honor.

4           **THE COURT:** May Mr. Gering be discharged?

5           **MR. PURCELL:** He made.

6           **THE COURT:** Thank you, sir. You're free to go.

7           Leave our documents here and have a great day.

8           **THE WITNESS:** Thank you, you too.

9           (Witness excused)

10          **THE COURT:** Next witness.

11          **MR. PURCELL:** Your Honor, Google calls Hasan Rizvi,

12          H-a-s-a-n, R-i-z-v-i.

13          **THE COURT:** Okay. Welcome. How are you?

14          **THE WITNESS:** Good. Thank you.

15          **THE COURT:** Please stand about there and raise your  
16          right hand.

17                               **HASAN RIZVI,**

18          called as a witness for the Defendant herein, having been first  
19          duly sworn, was examined and testified as follows:

20          **THE WITNESS:** I do.

21          **THE CLERK:** Thank you.

22          **THE COURT:** Welcome, again. Please, have a seat.

23          And this will move all around to suit you. See how I'm moving  
24          mine around, the microphone?

25          **THE WITNESS:** Okay.

1           **THE COURT:** You've got to be this close. But if you  
2 want to move it back, you don't have to lean over so far.

3           **THE WITNESS:** Okay.

4           **THE COURT:** So it will move back.

5           **THE WITNESS:** That's good. Thank you.

6           **THE COURT:** So you fix it. Say your name.

7           **THE WITNESS:** Hasan Rizvi.

8           **THE COURT:** Great. Thank you.

9           Go ahead.

10                                   **DIRECT EXAMINATION**

11       **BY MR. PURCELL:**

12       **Q.** Mr. Rizvi, you're a current Oracle employee, correct?

13       **A.** Yes.

14       **Q.** And you started work at Oracle in about 1990?

15       **A.** Yes.

16       **Q.** And that was long before Oracle bought Sun Microsystems,  
17 correct?

18       **A.** Yes.

19       **Q.** You left Oracle briefly in about 1998?

20       **A.** Yes.

21       **Q.** And you returned in 2001?

22       **A.** Yes.

23       **Q.** You've been there ever since, correct?

24       **A.** Yes.

25       **Q.** Your current position is senior vice president of

1 development?

2 **A.** Yes.

3 **Q.** The jury heard from a gentleman named Thomas Kurian a  
4 little earlier in the case. Mr. Kurian is your current  
5 supervisor, correct?

6 **A.** Yes.

7 **Q.** And his boss is Larry Ellison?

8 **A.** Yes.

9 **Q.** So you're two levels below Oracle's CEO, Mr. Ellison,  
10 correct?

11 And you and Mr. Kurian are responsible for managing  
12 Oracle's Java business unit, correct?

13 **A.** Yes, among other things.

14 **Q.** And you've been helping manage Oracle's Java business  
15 since Oracle acquired Sun in January 2010, correct?

16 **A.** Yes.

17 **Q.** Mr. Rizvi, the Java programming language is not Oracle's  
18 proprietary intellectual property; is it?

19 **A.** Programming language is not.

20 **Q.** The Java language is free for anybody to use without  
21 having to pay any royalty to Oracle, correct?

22 **A.** Yes.

23 **MR. PURCELL:** I'd like to get Exhibit 573 on the  
24 screen.

25 Your Honor, may I approach?

1           **THE COURT:** Yes. Is it in evidence?

2           **MR. PURCELL:** It is, Your Honor.

3           (Document displayed.)

4 **BY MR. PURCELL:**

5 **Q.** This is an e-mail to you from a gentleman at Oracle named  
6 Frederico Chab, correct?

7 **A.** Yes.

8 **Q.** It's dated June 25, 2010?

9 **A.** Yes.

10 **Q.** So this is about five months after Oracle acquired Sun,  
11 correct?

12 **A.** Yes.

13 **Q.** And if you could look at the fifth page of the document,  
14 which is the slide titled "Overview."

15 **A.** Okay.

16 **Q.** And I should be clear. This is a presentation on Java  
17 financial issues that's attached to the e-mail, correct?

18 **A.** Yes.

19 **Q.** And it states:

20           "Java Clients is a \$296 million business,  
21           growing 13% year to year."

22           Correct?

23 **A.** Yes.

24 **Q.** Java Clients, I think it clarifies in the next bullet  
25 point, includes Java SE, Java EE, Java Mobile, Java Card, among



1 other things?

2 **A.** Yes.

3 **Q.** And as of June 2010, it was true that Oracle's revenue  
4 from those Java platforms was growing at about 13 percent year  
5 to year, correct?

6 **A.** Yes.

7 **Q.** And that remains true today, correct?

8 **A.** Not necessarily.

9 **Q.** Oracle's revenue from those Java platforms is still  
10 growing at about a 10 percent yearly rate, correct?

11 **A.** It varies. So it's probably -- it's flat to slightly  
12 positive to slightly negative. It's almost flat, I would say,  
13 since the years after this.

14 **MR. PURCELL:** I would like to play from Mr. Rizvi's  
15 deposition at page 229, lines 13 to 21.

16 **THE COURT:** Go ahead.

17 (Video deposition clip played in open court; not  
18 reported.)

19 **BY MR. PURCELL:**

20 **Q.** Mr. Rizvi, do you stand by your testimony as of July 28,  
21 2011, that the Java business was growing at about a 10 percent  
22 rate?

23 **A.** Yes.

24 **Q.** Now, one of your direct reports at Oracle is a gentleman  
25 named Adam Messinger, correct?

1 A. He was, yes.

2 Q. He was. He's no longer?

3 A. No.

4 Q. Is he still at Oracle?

5 A. No.

6 Q. All right. So he left in the past several months,  
7 correct?

8 A. Yes.

9 Q. Prior to his departure, he was Oracle's vice president of  
10 development, correct?

11 A. Yes.

12 Q. And he was somebody that you had worked with for a number  
13 of years?

14 A. Yes.

15 Q. He was somebody that you trusted and relied on?

16 A. Yes.

17 Q. Now, you're also with familiar with a former Sun and  
18 Oracle employee named Jeet Kaul, correct?

19 A. Yes.

20 Q. Before Oracle acquired Sun in January 2010, Jeet Kaul was  
21 the Sun person in charge of Sun's organization for development  
22 of the Java SE, ME, and Java Card platforms, correct?

23 A. Yes.

24 Q. And after Sun bought Oracle in January 2010, Mr. Kaul  
25 became an Oracle employee, correct?

1 A. Yes.

2 Q. And he stayed with Oracle until the summer of 2010 or so  
3 before leaving?

4 A. Yes.

5 Q. So Mr. Kaul was your co-worker at Oracle for about six  
6 months?

7 A. Yes.

8 Q. During your time at Oracle, you've used the term  
9 "fragmentation" with respect to the Java platforms, correct?

10 A. Yes.

11 Q. Did there ever come a time prior to Oracle acquiring Sun  
12 when you had a discussion with Mr. Messinger about concerns  
13 that Sun was deliberately fragmenting Java?

14 A. There was one reference to that, yes.

15 Q. And what was that discussion?

16 A. It was an e-mail that I received from Mr. Messinger after  
17 a meeting he had with Mr. Kaul.

18 Q. And what did you and Mr. Messinger discuss about concerns  
19 that Sun was deliberately fragmenting Java?

20 MR. NORTON: Objection to the extent that it calls  
21 for hearsay.

22 THE WITNESS: Okay. Continue?

23 THE COURT: Well, let's see.

24 MR. PURCELL: The question only asks for his  
25 discussion with Mr. Messinger, Your Honor.

1           **THE COURT:** And Mr. Messinger was where at the time?

2           **THE WITNESS:** At Oracle.

3           **THE COURT:** Well, it would be -- it would be  
4 admissible since it's all in-house at Oracle, right?

5           **MR. NORTON:** I believe that the line of questioning  
6 is intended to elicit hearsay statements made by other  
7 individuals to Mr. Messinger.

8           **THE COURT:** Well, if it does, then I will give an  
9 appropriate instruction. For now the objection is overruled.  
10 Go ahead and answer the question.

11           **THE WITNESS:** Would you repeat the question?

12 **BY MR. PURCELL:**

13 **Q.** Certainly.

14           The question: What did you and Mr. Messinger discuss  
15 about your concerns at Oracle that Sun was deliberately  
16 fragmenting Java?

17 **A.** So to the extent that a statement was made by Mr. Jeet  
18 Kaul to Mr. Adam Messinger, we obviously were very concerned  
19 about that possibility.

20           There wasn't any direct evidence or any specific  
21 action that we could look at which substantiated that, but,  
22 clearly, it was a big concern for us.

23           **MR. PURCELL:** I'd like to approach the witness, Your  
24 Honor, if I could.

25           **THE COURT:** Sure.

1 BY MR. PURCELL:

2 Q. Mr. Rizvi, I've handed you Trial Exhibit 2110, which is  
3 not in evidence.

4 MR. PURCELL: Could we get it on the screen? Don't  
5 publish it to the jury.

6 BY MR. PURCELL:

7 Q. This is an e-mail between you and Mr. Messinger about the  
8 discussion regarding Sun's deliberate fragmentation of Java,  
9 correct?

10 A. Yes.

11 Q. It's dated December 9th, 2008, correct?

12 A. Yes.

13 Q. And that's over a year before Oracle acquired Sun,  
14 correct?

15 A. It's over a year from when we completed the acquisition,  
16 but it's only four months from when we started the process of  
17 acquiring.

18 Q. All right. In Mr. Messenger's e-mail, at the bottom of  
19 the page, he discusses a conversation he had with Mr. Kaul,  
20 correct?

21 A. Yes.

22 Q. And, again, in December 2008, Mr. Kaul was running a large  
23 part of Sun's Java development organization?

24 A. Yes.

25 MR. PURCELL: I'd like to move to admit Trial Exhibit

1 2110 into evidence, Your Honor.

2 MR. NORTON: Objection. Hearsay. 403.

3 MR. PURCELL: Your Honor, I think Mr. Kaul's  
4 statement on behalf of Sun is both a party admission and a  
5 statement against economic interest to an Oracle licensee --  
6 sorry, a Java licensee.

7 MR. NORTON: Your Honor, may we approach the sidebar?

8 THE COURT: Is it really necessary?

9 MR. NORTON: I think this particular document is.

10 THE COURT: All right. We'll have a sidebar  
11 conference. May I see the exhibit, please.

12

13 (The following proceedings were held at sidebar.)

14 THE COURT: What's the problem?

15 MR. NORTON: So there are several layers of hearsay  
16 here.

17 THE COURT: Are all the layers party admissions?

18 MR. NORTON: No, Your Honor.

19 THE COURT: Why not?

20 MR. NORTON: Because Oracle stands, in this case, in  
21 the shoes of Sun. It has -- it is not here as a result of any  
22 rights it had prior to the acquisition.

23 THE COURT: But all the people here either worked at  
24 Sun or worked at Oracle.

25 MR. NORTON: At the time this e-mail was written,

1 neither Mr. Rizvi nor Mr. Messinger were parties in the sense  
2 that "party" applies in this case for the hearsay rules.

3 **THE COURT:** Why not?

4 **MR. NORTON:** Pre-acquisition statements by Oracle are  
5 not party admissions because Oracle did not have a status as a  
6 party.

7 **THE COURT:** I'm going to overrule that objection  
8 because, in my view, Oracle stepped into the shoes of Sun, and  
9 everybody knows that Sun is the one that came up with Java.

10 And this is all about a Java employee and what he  
11 said to -- I mean, a Sun employee and what he said to an Oracle  
12 employee, who then repeated it to somebody else.

13 So I agree it's several layers of repeating what  
14 might otherwise be hearsay, but each layer of the hearsay is a  
15 party admission.

16 So that objection is overruled.

17 **MR. NORTON:** Thank you, Your Honor.

18 **MR. PURCELL:** Thank you, Your Honor.

19 (Sidebar concluded.)

20 **MR. PURCELL:** The exhibit number is 2110, Your Honor.

21 **THE COURT:** Received in evidence.

22 (Trial Exhibit 2110 received in evidence.)

23 **BY MR. PURCELL:**

24 **Q.** He writes:

25 "Steve Harris and I met with Sun last Friday.

1 He may already have told you about this  
2 meeting, but my sense is they are getting  
3 ever less stable over there.  
4 "Jeet Kaul, the guy running the group,  
5 basically said that he knew he was forking  
6 Java, and knew that this was destructive to  
7 the overall write-once, run-anywhere value  
8 proposition, but that he didn't care because  
9 it was the only way he could see to make  
10 money.

11 "This is a real problem for us. I wonder if  
12 it wouldn't be cheaper for us in the long-run  
13 to help them find a way to make money with  
14 their existing model than allowing them to  
15 destroy Java."

16 Do you see that?

17 **A.** Yes.

18 **Q.** And then if you go up to the top of the e-mail where you  
19 respond -- actually, strike that. Let's just focus on the  
20 section that we highlighted.

21 So you recall being told in December 28, that Jeet  
22 Kaul, who was running Sun's Java development organization, was  
23 deliberately forking Java because it was the only way he could  
24 tell to make money?

25 **A.** Yes. I received this e-mail, yes?



1 Q. And Sun's fragmentation of Java was of concern to you,  
2 correct?

3 A. Yes.

4 Q. And you didn't do anything to follow up with Sun on the  
5 concerns you discussed with Mr. Messinger; did you?

6 A. Well, we were obviously concerned. And, as I said, we  
7 didn't see any direct evidence of actions that they were  
8 taking. We -- if you do notice, it's only four months from  
9 then that we started the process of acquiring the company.

10 And that intention was in no small part motivated by  
11 our desire to not only protect Java but also to grow Java.

12 Q. Mr. Rizvi, you didn't investigate and then conclude that  
13 Mr. Kaul was wrong when he told Mr. Messinger he was  
14 deliberately forking Java, correct?

15 A. No. As I said, we didn't see any specific evidence.

16 Q. Now, if you look at the last sentence of Mr. Messenger's  
17 e-mail before the cheers sign off, he says:

18 "If do continue down this path, we'll need to  
19 decide if we want to take the Harmony fork,  
20 the OpenJDK fork, or just stick on JDK 1.6  
21 and innovate elsewhere."

22 Do you see that?

23 A. Yes.

24 Q. So those are, in Mr. Messenger's words, three separate  
25 forks of Java: Harmony, OpenJDK, and JDK 1.6?

1 A. In Mr. Messenger's words, he highlights two forks. But,  
2 yes, not three. But that's Mr. Messenger's words.

3 Q. Well, he mentions three separate items there, correct?  
4 Harmony, OpenJDK, and JDK 1.6?

5 A. Yes.

6 Q. So, Mr. Messenger is saying that Sun is actually selling  
7 itself two separate products -- OpenJDK and JDK 1.6 -- that  
8 he's defining separately, correct?

9 A. No.

10 Q. Well, he mentions them separately in the e-mail, doesn't  
11 he?

12 A. If I can explain. OpenJDK --

13 Q. It's all right, Mr. Rizvi. I'm time limited here.

14 So OpenJDK --

15 THE COURT: No. You started arguing with him. You  
16 said, well, he mentioned them separately in the e-mail.

17 MR. PURCELL: Fair enough, Your Honor. Fair enough.

18 THE COURT: You argued with him. He's entitled to  
19 give his argument back. Go ahead with your point.

20 THE WITNESS: So OpenJDK was not a product that Sun  
21 was selling. The -- JDK 1.6 was the standard.

22 Because of the lack of progress on the  
23 standardization front, which was being hampered by various  
24 issues in the Java community process, Sun was continuing to  
25 develop future enhancements to Java, wanting to do it in open

1 source. And OpenJDK was a mechanism that's used to do that.  
2 It was never labeled as a standard of Java. It was a proof of  
3 concept or a prototype. So that was Sun's attempt to continue  
4 to do development while the standardization process was not  
5 working effectively.

6 **BY MR. PURCELL:**

7 **Q.** Thank you, Mr. Rizvi.

8 OpenJDK is an open source version of Java, correct?

9 **A.** Yes.

10 **Q.** And Sun released that open source version of Java onto the  
11 market?

12 **A.** It's available freely, yes.

13 **Q.** And it's still available today after Oracle bought Sun,  
14 correct?

15 **A.** Yes.

16 **Q.** Now, Oracle makes the OpenJDK code available under  
17 something called the GNU public license, the GPL?

18 **A.** GPL.

19 **Q.** And when somebody uses the OpenJDK code from Oracle today,  
20 there's no requirement that they pass the technology  
21 compatibility kit, or TCK, correct?

22 **A.** I'm not exactly sure about that.

23 **Q.** In fact, the TCK is optional when somebody wants to use  
24 OpenJDK code, correct?

25 **A.** OpenJDK is the reference implementation for Java 7 today.

1 Q. That wasn't my question, Mr. Rizvi.

2 When somebody uses the OpenJDK code from Oracle  
3 today, passing the TCK is optional, correct?

4 MR. NORTON: Objection. Foundation.

5 THE COURT: Well, it's either yes, no, or I don't  
6 know the answer to that question.

7 THE WITNESS: I don't know the answer to that  
8 question.

9 BY MR. PURCELL:

10 Q. All right. Mr. Rizvi, you're familiar with the term "full  
11 stack" with respect to mobile operating platforms, correct?

12 A. Yes.

13 Q. A full stack includes an operating system, an applications  
14 framework, applications and other layers of software, correct?

15 A. Yes.

16 Q. And by that standard, Google's Android platform is a full  
17 stack, correct?

18 A. Yes.

19 Q. And Apple's iPhone operating system is a full stack,  
20 correct?

21 A. Yes.

22 Q. And I think the jury has heard some about Nokia's Symbian  
23 operating system. That's a full stack, as well, correct?

24 A. Yes.

25 Q. Sun's Java platforms are not full stacks, correct?

1 A. Yes.

2 Q. I'm sorry, let me clarify that.

3 Sun's Java platforms are not full stacks; are they?

4 A. No, in the context of your other examples, the operating  
5 system layer is the one that is included in some of those other  
6 platforms. And the Java platform is operating system agnostic;  
7 so, yes.

8 Q. In its entire existence, Sun never had a full stack on the  
9 market, correct?

10 A. I'm not aware of that the answer to that.

11 Q. Oracle has never had a full stack on the market, correct?

12 A. For the Java platform, no.

13 MR. PURCELL: No further questions.

14 THE COURT: Thank you.

15 Mr. Norton.

16 CROSS EXAMINATION

17 BY MR. NORTON:

18 Q. Good morning, Mr. Rizvi.

19 A. Good morning.

20 Q. In response to one of the questions from Mr. Purcell, he  
21 asked you whether the Java language is free to use. I'm going  
22 to draw your attention to that testimony.

23 Are you familiar with the term "API specification"?

24 A. Yes.

25 Q. When you testified that the Java language is free to use,

1 do you include the Java API specifications as part of that Java  
2 language that anyone is free to use?

3 **A.** No.

4 **Q.** Now, Mr. Purcell also asked you some questions about the  
5 e-mail from Mr. Messinger, Exhibit 2110.

6 After receiving that e-mail, did you see any evidence  
7 that Mr. Kaul was taking action to deliberately fork Java?

8 **MR. PURCELL:** Objection. Foundation. He said he  
9 didn't investigate.

10 **THE COURT:** That's true. He did say that. But,  
11 nonetheless, you asked equivalent questions along these lines,  
12 so I will allow this question.

13 **THE WITNESS:** Repeat the question.

14 **BY MR. NORTON:**

15 **Q.** Of course.

16 After receiving this e-mail from Mr. Messinger in  
17 September 2008, did you see any evidence that Mr. Kaul was  
18 taking steps to deliberately fork Java?

19 **A.** No.

20 **Q.** Did you see any evidence that Sun, more broadly than  
21 Mr. Kaul, was taking steps to deliberately fork Java?

22 **A.** No.

23 **Q.** To the extent that there was any fragmentation of Java,  
24 does the presence of Android make that fragmentation better,  
25 worse or no difference?

1 A. Worse.

2 Q. And why is that?

3 MR. PURCELL: Objection. Foundation.

4 THE COURT: Well, sustained so far. Was this witness  
5 asked about Android?

6 MR. NORTON: He was not.

7 MR. PURCELL: He was not, Your Honor. So I'll make a  
8 scope objection, too.

9 THE COURT: This is outside the scope of the direct.

10 MR. PURCELL: I'll withdraw the question.

11 I do have three questions that are outside the scope  
12 of Mr. Purcell's examination, and I'd like to ask those  
13 questions now, rather than call Mr. Rizvi in our rebuttal case.

14 THE COURT: Three questions?

15 MR. NORTON: Three.

16 THE COURT: Okay. You may ask those three questions.  
17 You cannot -- no leading.

18 MR. NORTON: I understand, Your Honor.

19 BY MR. NORTON:

20 Q. Once Oracle acquired Sun in January 2010, what  
21 discussions, if any, did you have with Google about taking a  
22 license from Android?

23 A. I had three separate meetings with Mr. Andy Rubin from  
24 Google.

25 Q. And what was Oracle's purpose in pursuing those

1 discussions with Google about a license for Java to Java for  
2 Android?

3 **MR. PURCELL:** Objection, leading.

4 **THE COURT:** No. It's a "what" question. Overruled.  
5 Please answer.

6 **THE WITNESS:** So, we had two major objectives.

7 One, of course, was the fragmentation concern with  
8 Android. So the attempts that we made were to try and figure  
9 out a way to get Android into compliance with the Java  
10 specification.

11 And the other objective was, obviously, to see how we  
12 can be compensated for our intellectual property.

13 **BY MR. NORTON:**

14 **Q.** Now, in any of your discussions with Google, did anyone  
15 ever suggest -- to what extent did anyone ever suggest that  
16 Google did not need a license because Jonathan Schwartz had  
17 indicated that Sun had no objections to Android?

18 **MR. PURCELL:** Objection. Leading.

19 **THE COURT:** Overruled. Please answer.

20 **THE WITNESS:** Repeat the question.

21 **BY MR. NORTON:**

22 **Q.** Yes. In your discussions with Google representatives, to  
23 what extent, if any, did anyone ever say that Google did not  
24 need a license for Java because Mr. Schwartz had indicated that  
25 Sun had no objections?



1     **A.**     Nobody said that.

2             **MR. NORTON:**   No other questions, Your Honor.

3             **THE COURT:**   All right.

4             **MR. PURCELL:**   Nothing further for me, Your Honor.

5             **THE COURT:**   Okay.   May the witness be excused?

6             **MR. NORTON:**   Yes, Your Honor.

7             **THE COURT:**   Great.   Thank you, sir.   Leave our  
8 documents here now.   We'll wonder where they went if you take  
9 them away.

10            (Witness excused)

11            **THE COURT:**   Thank you.

12            We'll have our next witness.   If anyone needs a  
13 break, we'll take one.   Okay.   We're going to take a 15-minute  
14 recess at this time.

15            **THE COURT:**   All rise.

16            (Jury exits the courtroom at 8:51 a.m.)

17            **THE COURT:**   All right.   Be seated.   Any issues for  
18 the Court?

19            **MR. JACOBS:**   None from us, your Honor.

20            **MR. VAN NEST:**   We have one, your Honor.

21            **THE COURT:**   All right.   Go ahead.

22            **MR. BABER:**   If we could, just a quick exhibit issue.  
23 I apologize to the Court for having to burden you with this.

24            We have two exhibits that Oracle has refused to  
25 stipulate to the admission to.   They are self-authenticating

1 documents under Rule 9021. They are certified records from the  
2 Copyright Office of the applications for the registrations that  
3 they are suing on and the materials that were submitted with  
4 them.

5 Frankly, I thought they were in evidence. They put  
6 some materials in evidence, but they are not certified. And we  
7 asked Oracle if they would stipulate to the certified ones and  
8 they refused.

9 We move for the admission of 3529 and 3530.

10 **THE COURT:** Let me see one of them. Show me one at a  
11 time.

12 **MR. BABER:** Handing your Honor Exhibit 3529, which  
13 are the certified records of the Copyright Office for the  
14 registration of the work entitled Java 2 Standard Edition  
15 versus 5.0, which goes with Registration No. TX6-066-538.

16 (Whereupon, document was tendered  
17 to the Court.)

18 **THE COURT:** What are all these redactions?

19 **MR. BABER:** Your Honor, that was sent to the  
20 Copyright Office back in 2004. The rules at the time allowed  
21 an applicant for a copyright registration, if they didn't want  
22 to send in their code just, you know, for the public record,  
23 they were allowed to send in -- it varied by work, but the  
24 first 25 and last 25 pages of a program if it had an  
25 identifiable beginning and end. If not, they could basically

1 send in any 50 pages and they could redact anything they  
2 thought was confidential.

3 So that's the record from the Copyright Office of  
4 what the Copyright Office got in connection with this  
5 registration.

6 **THE COURT:** There wasn't an electronic copy?

7 **MR. BABER:** With that one, your Honor, there was not.  
8 With the one I'm going to come to a moment there was.

9 **THE COURT:** Does this application correspond to one  
10 of the registrations we have already seen?

11 **MR. BABER:** It does, your Honor. The actual original  
12 registration is in evidence. We stipulated to it last week  
13 from them. It's at Trial Exhibit 475.

14 **THE COURT:** What is the objection to this? What is  
15 your objection to this?

16 **MR. JACOBS:** There is a disc. There is a disc for  
17 both. We produced the disc. The Copyright Office didn't  
18 include the disc because it's a disc, or perhaps because there  
19 is a recordkeeping issue.

20 We advised Google that we could stipulate if the disc  
21 came in. So far Google has not yet agreed with us --

22 **MR. BABER:** Your Honor, the record of the Copyright  
23 Office is pretty clear. They did send in a disc with one, and  
24 you'll see it.

25 The one other one is different. The other says there

1 is a disc, et cetera. But there is no record of the Copyright  
2 Office about any disc being sent in with this one. The only  
3 way we can prove that, and the way you have to prove it, is  
4 with certified records from the Copyright Office.

5 They have something in evidence that says it's the  
6 deposit materials, but it's not complete and it doesn't include  
7 a disc either. That as an aside. But these are certified  
8 records from the Copyright Office of what they sent in.

9 **THE COURT:** Well, do the certified records only  
10 certify the written part? Show me the other one.

11 **MR. BABER:** Yes, your Honor.

12 Let me hand you Trial Exhibit 3530, which corresponds  
13 to the other registration. And if you read the second  
14 paragraph of that certification, you'll see it talks about the  
15 disc.

16 **THE COURT:** Where do I find that?

17 **MR. BABER:** On the very first page, your Honor, the  
18 one with the seal and the ribbon, the second paragraph.

19 (Whereupon, document was tendered  
20 to the Court.)

21 **THE COURT:** This says -- this is 3530 exhibit. It  
22 says that, quote, it has been established that the compact disc  
23 retrieved from our storage facility does not contain data.

24 **MR. BABER:** That's right, your Honor. That's what  
25 the Copyright Office has certified.

1           **THE COURT:** I don't understand the point.

2           **MR. BABER:** Your Honor, there is no way of knowing at  
3 this point whether there was data on the disc or whether the  
4 disc has become corrupt the over time.

5           I think the certification, you will see, it also says  
6 there is no requirement that they send in the disc, so it  
7 wasn't even examined.

8           The paper copies with the redaction, the Copyright  
9 Office said that was a sufficient deposit, complied with the  
10 rules at the time according to whoever examined it. But this  
11 is just -- we know what the Copyright Office records do show  
12 about these two registrations.

13           **THE COURT:** It goes on to say, "The attached photo is  
14 a true representation of the front of the compact disc and  
15 front of the compact disc cover."

16           Where are those?

17           **MR. BABER:** You go behind the certification, your  
18 Honor, the first four pages, I think, are the actual  
19 application and I believe it's right behind that. There's a  
20 photocopy of a disc.

21           And then, I believe, immediately behind that are the  
22 redacted 50 pages of source code.

23           **THE COURT:** What is the legal significance of this?

24           **MR. BABER:** The legal significant of it, your Honor,  
25 is, No. 1, the Court should have in the record an official

1 record of what was submitted in connection with these copyright  
2 registrations, No. 1.

3 No. 2, it's significant to complete the record  
4 because plaintiff has admitted as Trial Exhibit 606 and 607  
5 materials that it identified as the deposit materials which are  
6 not complete and are not certified.

7 And, third, your Honor, it affects an issue we raised  
8 in our JMOL motion last night, which is because we cannot now  
9 go to the Copyright Office and get from the Copyright Office  
10 what the work is in its entirety. Normally you can go get a  
11 copy of the book or the music or whatever is the work.

12 This just means since they didn't want to send it in  
13 and they sent in the redacted code, they have a burden at trial  
14 to prove what was the work that they were registering at the  
15 time. So that's the significance in terms of nuts and bolts of  
16 the plaintiff proving we have a copyright registration. Here  
17 is the work that it covers. This is the work that existed at  
18 the time we sent it in and this is what the case is about. So  
19 it's -- it's fairly fundamental to their claims, your Honor.

20 **THE COURT:** On the other one, 3529, it does not refer  
21 on the certification page to any disc.

22 **MR. BABER:** No, your Honor. It's our understanding  
23 that no disc was submitted with that one.

24 **THE COURT:** How do you understand that?

25 **MR. BABER:** We understand that because that's what

1 the Copyright Office records show.

2           **THE COURT:** But I thought Mr. Jacobs said that it was  
3 submitted.

4           **MR. BABER:** Well, we have been told that we think  
5 maybe one was, but that's why we have certified records from  
6 the Copyright Office, your Honor, frankly.

7           **THE COURT:** Well, what is the legal objection to  
8 these documents?

9           **MR. BABER:** I have no idea, your Honor.

10           **MR. JACOBS:** I think on 1.4 we can agree it comes in.  
11 On 5.0 it's incomplete and we can complete it.

12           And we do have records of submitting a CD and it says  
13 5.0 on the front and back. So that's our objection.

14           **THE COURT:** Well, the objections are overruled.  
15 These two will come into evidence and if the plaintiff wants to  
16 put in rebuttal evidence that shows something was omitted here,  
17 you're free to do that. But this is a certified copy from a  
18 federal agency and, according to their records, this is what  
19 was the application.

20           So the fact that it differs from the memory of Sun,  
21 you know, is a disturbing point, but it nonetheless is not a  
22 legal objection to the admissibility of 3529 and 3530. Both of  
23 these two are now received in evidence.

24           **MR. BABER:** Thank you, your Honor. That's all I  
25 have.

(Trial Exhibits 3529 and 3530 received in evidence)

**THE COURT:** The Deputy Clerk says:

"Please ask counsel to file the hand-outs that were given to the jury so they can be part of the record."

It's a very good point. What I would like for you to do is just have a notice that is filed, both sides agree, joint notice, that appended hereto are the one-pagers that we have given to the jury. All of those should be -- timeline, glossary and so forth, all of that should be in one document for the benefit of the Court of Appeals.

**MR. BABER:** We will get them all together, your Honor.

**THE COURT:** Wait. She's got another note.

"Juror No. 2 does not feel well, is coming down with a cold.

Who is -- is that what she said or you say?

**THE CLERK:** That's what she says. She thinks it's a cold.

**THE COURT:** Does she indicate she can't go on or what?

**THE CLERK:** She said she's trying.

**THE COURT:** Well, unless -- I think -- can you ask her if she's able to pay attention and continue on today?

**THE CLERK:** Yes.



1           **THE COURT:** Would you ask her that? Is that all  
2 right with everyone?

3           **MR. JACOBS:** Yes, your Honor.

4           **MR. VAN NEST:** Yes.

5           **MS. ANDERSON:** Yes.

6           **THE COURT:** All right. We will deal with it more  
7 informally for now. We will take 15 minutes ourselves.

8           (Whereupon there was a recess in the proceedings  
9 from 9:05 a.m. until 9:20 a.m.)

10          **THE COURT:** All right. Be seated.

11          Dawn had a talk with the juror who is not feeling so  
12 great. She wants to continue.

13          Dawn come around here, please. You tell me if I have  
14 this right.

15          Our juror who is not feeling so good, Ms. Gonzalez,  
16 wants to continue. I saw her in the hallway just a moment ago  
17 and she says she's got a headache. I said, "Do you have a  
18 fever?" She says, "No." I said, "Do you think you can  
19 continue?" She says, "I think so," or "I want to try,"  
20 something along those lines.

21          You see the issue. My concern is that she will --  
22 she may have the flu or something and come down with it and  
23 many of the other jurors will get it and then we will have a  
24 long hiatus.

25          I'm not suggesting that we discharge her. I'm not

1 suggesting that we don't. We do have -- it's not always easy  
2 how to resolve these problems because you've got to be  
3 sensitive to her health and, also, her feelings and, also, the  
4 commitment she has already made to the case.

5 So I need to see what the lawyers think, if we should  
6 just let it ride or what?

7 **MR. JACOBS:** I think so long as he she's indicating  
8 that she wishes to try to continue, we should probably go down  
9 that path.

10 **MR. VAN NEST:** I agree with that, your Honor. Unless  
11 she determines she is just so ill she can't go on.

12 **THE COURT:** No, no. I think she's not that far. It  
13 may be that she -- I asked her, thinking maybe it was just a  
14 one-time thing, I said, "Well, did you have a big party last  
15 night?" You know, in the past I've had jurors who did do  
16 exactly that. And they -- so it's a one-day thing. But, no,  
17 in this case it's not it.

18 So I don't have a good feeling about this one, but  
19 I'm going to go with your judgment on it.

20 So I have read these deposition. It was really three  
21 copies of the same thing, right, of the deposition designations  
22 by Oracle?

23 **MR. JACOBS:** Yes, your Honor.

24 **THE COURT:** And so I'm overruling all the objections  
25 and this can be put into evidence. It has enough to do with

1 fair use that this will be allowed. All those objection are  
2 overruled.

3 **MR. JACOBS:** And just for the record, we're talking  
4 about the Agarwal designations.

5 **THE COURT:** Correct.

6 Now, let's go to our next witness and bring the jury  
7 back.

8 (Jury enters the courtroom at 9:23 a.m.)

9 **THE COURT:** So before we -- while you're all getting  
10 your notepads ready, now, Ms. Gonzalez, if you start to feel  
11 that you just cannot pay attention, then let us know and we  
12 will take another break.

13 We want you all to stay in good health. You know,  
14 it's very important that we get through the next eight weeks,  
15 but if we did have to lose a juror on account of illness, we  
16 have enough that we can do that and still soldier on.

17 But principally I'm concerned about, I want to make  
18 sure that you are not put in any kind of a discomfort. So if  
19 that happens, raise your hand and we will take a break, okay?

20 **JUROR GONZALEZ:** Okay.

21 **THE COURT:** All right. Everybody over there ready to  
22 go with your notepads? Wonderful.

23 Let's have our next witness.

24 **MR. VAN NEST:** Thank you, your Honor. Google calls  
25 Jonathan Schwartz.

1           **THE COURT:** Jonathan Schwartz. Is that you?

2           **THE WITNESS:** That is, in fact, yes.

3           **THE COURT:** All right. Well, please stand and raise  
4 your right hand.

5                           **JONATHAN SCHWARTZ,**

6 called as a witness for the Defendant herein, having been first  
7 duly sworn, was examined and testified as follows:

8           **THE WITNESS:** Yes.

9           **THE CLERK:** Thank you.

10          **THE COURT:** All right. Okay. Welcome, sir.

11          See the microphone? Mine is just like yours. It  
12 moves all around, so you need to -- you've got to get this  
13 close, though, for it --

14          **THE WITNESS:** Got it.

15          **THE COURT:** That's good. There we go. Thank you.  
16 Why don't you stay your name?

17          **THE WITNESS:** Jonathan Schwartz.

18          **THE COURT:** Perfect.

19          Go ahead, counsel.

20          **MR. VAN NEST:** Thank you, your Honor.

21                           **DIRECT EXAMINATION**

22 **BY MR. VAN NEST:**

23 **Q.** Good morning Mr. Schwartz. Would you please introduce  
24 yourself to the jury and give them a little personal  
25 background?

1 A. Sure. I am Jonathan Schwartz, and I think for purposes of  
2 this I was the chief executive officer for Sun Microsystems  
3 from 2006 until 2010.

4 Q. And where do you live now, Mr. Schwartz?

5 A. I live in San Francisco.

6 Q. What do you do for a living?

7 A. I am the chief executive officer of a little start-up  
8 called Care Zone.

9 Q. And what does Care Zone do?

10 A. Care Zone is a safe place to care for a loved one. So if  
11 you have parents that are aging and you want a safe place to  
12 keep information about them, their personal histories,  
13 important documents, maybe where their medications are, what  
14 medications they are taking, or if you have a child who is ill  
15 and you want a safe place to do that away from the world's  
16 social networks, that's what Care Zone does.

17 Q. Are you the founder of Care Zone?

18 A. I am indeed.

19 Q. Could you give us a little bit of background, Mr.  
20 Schwartz? Where did you grow up and what was your education?

21 A. So I grew up on both coasts, the west coast and the east  
22 coast. I went to elementary school just south of L.A. I went  
23 to high school on the east coast. I went to university in  
24 Connecticut, Wesleyan University, and graduated in the late  
25 '80s studying math and economics.

1           And shortly after a stint at a consulting company, I  
2 started another little company. That company, called  
3 Lighthouse Design, was ultimately acquired by Sun Microsystems,  
4 which is how I got to Sun in 1996.

5 **Q.** So can you recap for our jurors briefly, Mr. Schwartz,  
6 your on career at Sun starting in 1996? What positions did you  
7 hold and what responsibilities did you have?

8 **A.** Sure. Starting in 1996, I was -- my little business,  
9 which was called Lighthouse Design -- we did not, in fact,  
10 design lighthouses -- was acquired by Sun and we were left  
11 intact. So we were running -- and I was the general manager  
12 then of this little start-up inside of a big company. And once  
13 we got acclimated, I then started taking on different  
14 responsibilities.

15           I ultimately became responsible for the product  
16 marketing of Java technologies and then over a longer period of  
17 time, I took on responsibility for our software business.  
18 Ultimately I was then the chief operating officer in 2004 and  
19 then became the chief executive in 2006.

20 **Q.** Approximately, when did you become involved in product  
21 marketing for Java?

22 **A.** In the late 1990's, 1998 or so.

23 **Q.** We have been discussing Java throughout the trial. Just  
24 like to get a little bit of background on that.

25           The Java programming language has that always been

1 free and available for anyone to use?

2 **A.** Absolutely.

3 **Q.** And how long has that been the case?

4 **A.** Since Java's inception, which was prior to my arrival at  
5 Sun. So in the early '90s.

6 **Q.** And how -- during the time you were at Sun, Mr. Schwartz,  
7 how did Sun promote use of the Java language?

8 **A.** Well, what was important for Sun at the time was, there  
9 was one dominant company that was defining how all computing  
10 should be done, and that was Microsoft. And with the emergence  
11 of web browsers, there was an opportunity for new applications  
12 to be written that didn't require Microsoft Windows.

13 And that's what Java technology was all about. It  
14 was a way to write an application that could do all kinds of  
15 magical things inside of a web browser, but then whenever a web  
16 browser appeared, as opposed to wherever Microsoft Windows  
17 appeared, which was important, wherever a web browser appeared,  
18 you could run that application and thus the tag line "write  
19 once, run anywhere," as opposed to "write once, and write a  
20 check to Microsoft to run it."

21 Strategically Java as very important to us to open  
22 new markets and escape this one company that was closing off  
23 our market opportunities.

24 **Q.** And did the company take steps to promote widespread use  
25 of the Java language?

1 A. The company, Sun Microsystems, worked as hard as we could  
2 to open the market and using Java, and the distribution of Java  
3 and the technologies behind Java to open that market,  
4 absolutely.

5 Q. Did you promote the teaching of Java in colleges and  
6 universities?

7 A. It was critically important that we not simply market to  
8 businesses, but we go to really the seeds of all future  
9 businesses, which are high schools and universities around the  
10 world.

11 So naturally universities and high schools didn't  
12 have a lot of money, so you couldn't be successful in promoting  
13 a technology unless you made it freely available, and that's  
14 exactly what we did. So we literally went across the world and  
15 tried to help universities set up academic curriculum, tried to  
16 help them create courseware, tried to give them whatever  
17 technology was necessary to aid the students to learn Java  
18 because then they would graduate and they would go to work for  
19 a big company that could become a customer, or they would go  
20 off and start a whole new company based on Java.

21 Q. What are the Java Application Programming Interface  
22 specifications, Mr. Schwartz?

23 A. So the language is basically the syntax you use: Where do  
24 you put a semicolon? Where did you do put an angle bracket?  
25 How do you word things? It's basically the words you use to



1 construct an instruction set.

2 But then if you want to use the underlying operating  
3 system, you actually have to have some guide for how those  
4 instructions will be delivered. And the specifications are  
5 simply the words and the language you use to make sure that  
6 when you are creating an application or creating a set of  
7 instructions, they can then be interpreted by the underlying  
8 operating system to go off and actually do something.

9 So there they are a way of ordering together higher  
10 level concepts so that when you are trying to instruct an  
11 operating system, you know, you're doing so in a high level  
12 language. So maybe an example would be helpful.

13 Q. That would be fine.

14 A. So, imagine you want to make your computer beep. The  
15 language -- you know, there might be a construct for beeping.  
16 So you have to write the instruction out to tell your computer  
17 you would like it to beep, but then you actually have to pass  
18 that instruction to the operating system, which is then going  
19 to communicate with the computer to say make the beep happen.

20 So if you want to do that in a standardized way, what  
21 you would use Java to do is there would be a sound library and  
22 you would call the sound library. You would use the APIs for  
23 sound and you would say, you know, writing the instruction as  
24 the APIs had specified, make a sound. Make it sound like a  
25 trumpet. Make it this loud. Make it this long. Have the tone

1 be like this. And then you've written your application. Those  
2 APIs will then allow you to communicate directly with the  
3 engine of the computer that will now make a beep.

4 So simply having a language isn't sufficient to  
5 create an application. The language is certainly the set of  
6 instructions. You then need the APIs to kind of create order  
7 for them to be able to pass it in a logical way to the machine  
8 that's actually going to be performing the instruction.

9 **THE COURT:** In your example, what would be the API?

10 **THE WITNESS:** The API would be in this example, say,  
11 a sound API, and the sound API would structure for you -- the  
12 first thing you do is you identify the musical instrument.  
13 Right? And the second thing would be how long you want to hold  
14 the note. The third would be, do you want it to be a staccato  
15 or a bravado note.

16 So the APIs specify all of the details that are then  
17 described by those instructions that tell the computer how to  
18 behave.

19 **THE COURT:** So when you write it out -- you're the  
20 programmer and just sticking with your example --

21 When you're writing your application, what words  
22 would you put down on the line that would call up that API the  
23 way you just described it?

24 **THE WITNESS:** You would look at the specification to  
25 know how you would write the instruction because you couldn't

1 just walk up to it and say, "Beep." You would need to know,  
2 okay, how do I generate sound? And what are the different  
3 functions that are available for me to generate sound? And now  
4 how do I write an instruction in such a way that I can use the  
5 underlying sound library to cause a beep?

6 **THE COURT:** From memory do you know what the --

7 **THE WITNESS:** I do not.

8 **THE COURT:** You would have to look it up somewhere?

9 **THE WITNESS:** I'd have to look it up. I'd have to  
10 look at the specs to know that.

11 **THE COURT:** Okay. Go ahead.

12 **BY MR. VAN NEST:**

13 **Q.** Mr. Schwartz, did Sun promote the Java language APIs along  
14 with the language?

15 **A.** Absolutely. We had to, if you wanted to see that language  
16 be broadly accepted.

17 So it's insufficient to just give you a language  
18 because what do you do with it? I mean, how do you now write  
19 an application?

20 So those APIs enabled people to write really full,  
21 complete applications that leveraged all the technology that  
22 was underlying the platform. So the combination of the  
23 language and the APIs, the distribution of those across the  
24 world, is what enabled the effect we were seeking, which is  
25 broad scale adoption of the platform that would allow us to

1 bypass Microsoft Windows.

2 Q. So were the APIs simply marketed along with the language?  
3 In other words, free and available for everyone?

4 A. Yes. Absolutely. We talked about open APIs, and then you  
5 compete on implementations. And what that means is we all had  
6 the same set of APIs, but we would then create products, the  
7 virtual machine specifically or the technology that underlies  
8 the language, to go off and perform -- I'm doing a bad job of  
9 explaining.

10 Q. Let me ask this question, Mr. Schwartz. You're doing a  
11 fine job.

12 Were the APIs ever sold or licensed separately from  
13 the language?

14 A. No, of course not.

15 Q. And they were considered free and available as part of the  
16 language?

17 A. As part of the platform, yes.

18 Q. Now, you were talking about implementations being  
19 separate.

20 A. Yes.

21 Q. Can you explain to the jurors what you mean by that? What  
22 do you mean by a separate implementation of a program?

23 A. So just because you've written an application to make a  
24 beep -- you know, if I write it, you can write it on your note  
25 pad right now. It's not going to do anything. You actually

1 have to send those instructions to a computer, which needs to  
2 be running an operating system that knows how to emit a sound.

3           So the portion of the technology stack that's  
4 actually running the computer is generally the implementation.  
5 It is the -- on a desktop computer if you think about the  
6 browser and you think there might be an application running  
7 inside it, just because I sent instructions to the browser  
8 doesn't mean that it will go off and perform what I want. It's  
9 got to have the technology to execute the instructions that  
10 I've passed to it.

11 **Q.** Would that typically be source code? The implementation  
12 be written in source code?

13 **A.** The -- well, all technologies in Java are written in code  
14 by definition. Some of them then become executable, which are  
15 the portions that are now running. So you're not constantly  
16 writing while something is running, you run something and then  
17 you, you know, it to something that will execute those  
18 instructions. So the implementation is the thing that is  
19 executing.

20 **Q.** Now, if Sun made the language available for free and made  
21 the APIs available for free along with the language, how was  
22 Sun expecting to make money?

23 **A.** Again, understanding the context is important. There was  
24 one company that was monopolizing the computing marketplace,  
25 and it was Microsoft. They owned every computer as far as of

1 the eye could see on desktops, all right?

2           This was before the advent of smart phones and before  
3 they really had a focus on the data centers or server rooms  
4 where now, you know, big companies are running services like  
5 you would see from Amazon or from eBay.

6           And so what Java enabled Sun to do is to get together  
7 with Oracle and IBM and SAP and Cybase and a variety of other  
8 companies and say, "I tell you what. Let's all agree on Java.  
9 Let's agree on the language and the specifications. We'll all  
10 have the same opportunity then, by virtue of our ganging  
11 together, now we're all a part of the Java Community."

12           So now when I at Oracle or SAP write an application,  
13 it can run on an IBM computer. It can run on a Sun computer.  
14 It can run on any computer that runs Java. And that was our  
15 way of bypassing the monopoly. We would bring together all  
16 these disparate companies that didn't have much in common and  
17 give them something that would make them -- you know, basically  
18 allow us to pull together in something that was bigger than  
19 even the monopoly itself.

20           And that was the core part of our strategy, to create  
21 technologies and specifications that would bring people  
22 together and allow them to compete with their own databases,  
23 with their own servers, with their own technologies.

24 Q. You've used the term "open APIs," "open specification" a  
25 couple of times. Would you explain to the jurors what you mean

1 by that?

2 **A.** Sure. If I went to Oracle and IBM and said, Here, let's  
3 just the two of us agree on this technology and then just the  
4 -- you know, the three of us will gang together and we'll own  
5 the whole market. The problem in doing that is if we only own  
6 5 percent of the market, then that's not going to be very  
7 effective, right? We have a minority of a market that is very,  
8 very big.

9           So the way that you build trust with these partners  
10 is you say, Look, all these specifications are going to be  
11 decided in the open. Everyone will have equal access to them.  
12 Everyone will have equal opportunity. There will be no tilted  
13 playing field. Everyone will have equal access to the  
14 specifications, to the language, so that we can then go off and  
15 create our own products. We will create our own servers, our  
16 own databases, our own application servers, our own software  
17 products. But what we're going to agree upon is the language  
18 and that set of specifications. So those need to be open, and  
19 we made a lot of noise about open APIs. You know, we'll  
20 compete on implementations.

21           So just because I create a great specification for  
22 databases, and there's a very good one in Java, it doesn't mean  
23 that there's no market for databases. Database companies would  
24 build the best database to run Java, and a variety of them did  
25 exactly that.

1 Q. So, Mr. Schwartz, was there ever a time during your tenure  
2 at Sun, all the way up to 2010, I believe you said, where the  
3 APIs were considered -- the Java APIs were considered  
4 proprietary or protected by Sun?

5 A. No. And to the extent that anybody made that claim, we  
6 would have worked very hard to say that's not true. These are  
7 open APIs. We want to bring in as many people as possible  
8 because if we did, we can bring them together. Now they have  
9 added to the Java Community. Our market opportunity got that  
10 much bigger because more people were a part of the community.  
11 We wanted to basically build the biggest tent and invite as  
12 many people as possible.

13 Q. Now, when did you actually become chief operating officer  
14 of the company?

15 A. 2004.

16 Q. And then chief executive officer, when was that?

17 A. 2006.

18 Q. Can you tell the jurors what responsibilities did you have  
19 once you became chief executive officer, Mr. Schwartz?

20 A. Well, I was responsible for all the operations of the  
21 company: For setting the vision, for articulating our  
22 strategy, for delivering our performance, for executing on  
23 product road maps. As chief executive, you're responsible for  
24 everything that happens in the company.

25 Q. So would that include licensing and the use of the



1 company's intellectual property?

2 **A.** Absolutely. And setting the strategies around our  
3 intellectual property.

4 **Q.** Now, have you -- while you were CEO, did you publish  
5 something called Jonathan's Blog.

6 **A.** Yes, I do.

7 **Q.** Tell the jury what is Jonathan's Blog?

8 **A.** So Sun probably seems like a big company to you, and it  
9 did to us at the time. We were a 10, 12, \$14 billion company,  
10 and that's a really big company. Unfortunately, our  
11 competition was 10 times our size. And so you have IBM. You  
12 had Oracle. You had Microsoft. I mean, companies with  
13 unfathomable ad budgets. I mean, so it's not just 30 second  
14 ads during the Super Bowl. It was all of the Super Bowl ads.  
15 So one of the big issues for Sun was getting our message out,  
16 was communicating. Because when you have 10,000 salespeople,  
17 you have 10,000 opportunities to deliver your message. When  
18 you have 100,000 salespeople, they are delivering their message  
19 10 times as frequently, right? So we were always trying to get  
20 our message out and always faced with just this human scale  
21 problem. We only have so many salespeople to deliver so many  
22 messages.

23 So the internet changed all that. Now I could write  
24 a blog and say, "Here is Sun's strategy," and all of a sudden  
25 everyone who was interested, every customer, every employee of

1 ours, every partner of ours can now simultaneously know what  
2 our strategy was, as opposed to having the IBM rep or Oracle  
3 rep tell them, "No, no, no. Here is Sun's strategy. Let us  
4 tell you because we have more people."

5 Q. Was the blog posted on Sun's website?

6 A. The blog was posted on Sun's website and it was our  
7 mechanism of communicating what was important to us, you know,  
8 for telling our shareholders how we were doing, for telling our  
9 employees what was important, for telling our customers how to  
10 think about our new products?

11 Q. Did you consider the statements you made on the blog to be  
12 official statements of Sun itself?

13 A. That's exactly what they were. They were the equivalent  
14 to me of holding a press conference, but I didn't need to call  
15 the press.

16 Q. Now, our jurors have heard the term "open source" a number  
17 of times. Can you explain briefly what you understood "open  
18 source" to mean while you were CEO of Sun?

19 A. Sure. I'm trying to think of a good analogy.

20 So I presume you all are familiar with Wikipedia.  
21 And Wikipedia is an interesting site. You can go and you can  
22 change the content on Wikipedia whenever you see fit. And  
23 there are other people who are changing it, you know, along the  
24 same path.

25 And by virtue of making it open, by making it

1    editable to anybody, everyone the world over knows Wikipedia.  
2    So Wikipedia is an open source encyclopedia.  It's a set of  
3    content that's been made available for anyone to modify.

4               So in the technology world traditionally you would  
5    get a product and you would say, "I don't really like this.  
6    It's not doing what I want.  I would love to have the source  
7    code to it so I could modify it."  And up until the early '90s  
8    no one would give you the source code.  You were stuck with  
9    taking a product and using it whether you liked it or not.

10              That all changed with an individual named Linus  
11   Torvald, who decided to -- because he couldn't get the source  
12   code to Sun's operating system at the time, he decided to  
13   create his own operating estimate.  It was called Linux.  And  
14   Linux turned out to be a pretty magical thing.  Anybody who  
15   wanted to make a contribution to the operating system could.

16              So lots of people, especially in universities,  
17   downloaded the code, started modifying it and started creating  
18   an operating system that today runs some of the world's biggest  
19   companies.  And that was not done because there was initially  
20   one company that was selling it.  It was done because it was  
21   open to a community of developers.

22   **Q.**   And did Sun participate in this open source movement as  
23   well?

24   **A.**   We were very slow to do so and as a result of that,  
25   specifically Linux became enormously successful.  And at the

1 time the individuals running Sun were saying, "Well, this  
2 doesn't make any sense. We don't want to do this. We don't  
3 know how to make any money at it."

4 And there was one company in particular in North  
5 Carolina named Red Hat that was doing a brilliant job of making  
6 money off of a free product, making money off of Linux.

7 **Q.** How do you do that? How does a company in the open source  
8 area make money by giving a product away for free?

9 **A.** So if you're in a big business and all of your developers  
10 come to work and say, "Hey, I have a new operating system. Why  
11 don't you run mine?" What would happen? You would end up with  
12 200 operating systems. So that doesn't actually work.

13 But instead if everyone comes and says, "Well, we  
14 have something that's similar to the one that we're running,  
15 but here's a company that's actually producing a single version  
16 that has a brand called Red Hat, and it runs the Oracle  
17 database. It runs the IBM software package. It runs SAP. It  
18 runs all the important software out there. Let's choose to use  
19 it."

20 What happens when you have a big Open Source  
21 Community is the community tends to tip to a single instance, a  
22 single version. In the Linux Community it tipped to Red Hat.  
23 And by virtue of that Red Hat could then go to an enterprise  
24 and say, "Well, if you want to run our product, which isn't  
25 like any of these little ones that people are bringing in from

1 home, ours is going to be supported on the phone. So if you  
2 ever have a problem, you can call us. Ours, we can certify  
3 that it will run Oracle well, and Oracle is going to tell us  
4 that it's going to run well. They are going to guarantee their  
5 product on our platform."

6 That's how you begin to make money. You make money  
7 off of providing support and by charging customers for the  
8 guarantee of quality that, unlike all the little versions that  
9 may be brought into work, this one's really going to be  
10 bulletproof. It will have been tested. It will have been  
11 robust. It will be in deployment. And lots of people will be  
12 familiar with its inner workings.

13 So the way you make money is a little hard to see as  
14 a consumer, but as an enterprise, complexity is your enemy.  
15 You don't want actually lots of anything. You want one thing  
16 so that you know around the world we run Red Hat.

17 **Q.** Thank you, Mr. Schwartz.

18 I want to come back to a couple of areas we have  
19 heard some testimony about. One is GNU Classpath. Do you know  
20 what GNU Classpath is?

21 **A.** I do indeed.

22 **Q.** Could you briefly describe for the jury what that is?

23 **A.** So the dynamics in the Open Source Community are really  
24 very interesting because you don't ask permission to do  
25 anything. You just decide.

1           And using the Linux example, Linux was basically a  
2 clone of Unix. It used the same APIs. And there was no one  
3 who was going to step up and say, "Hey, you can't do that."  
4 This was being done by students. There was no entity behind  
5 it. It would be the equivalent of Encyclopedia Britannica  
6 suing Wikipedia. It wouldn't help to them. If anything, it  
7 would make Wikipedia even more successful.

8 **Q.** What about GNU Classpath?

9 **A.** So GNU Classpath was an open source implementation of  
10 Java. And so a developer and a group of developers decided to  
11 get together and create an open source Java. They weren't  
12 calling it Java. It was GNU Classpath.

13           And so there was little we could do to stop them, and  
14 to a certain extent it was actually good because they were  
15 bringing more developers into Java.

16 **Q.** So was it -- GNU was using the Java programming language,  
17 correct?

18 **A.** GNU.

19 **Q.** GNU.

20 **A.** The group of developers who were using the GNU license  
21 were using the Java programming language.

22 **Q.** Did they eventually have a platform they called the  
23 Classpath?

24 **A.** They did.

25 **Q.** And did that use the Java programming language?

1 A. That absolutely used the Java programming language.

2 Q. I assume it used the Java APIs we were talking about?

3 A. It absolutely used the Java APIs.

4 Q. Sun was aware of it?

5 A. We were aware of it.

6 Q. Was anything done to stop Classpath from making their  
7 platform available?

8 A. No.

9 Q. Did they ever try to call themselves Java?

10 A. To the best of my knowledge, no.

11 Q. So from Sun's perspective what GNU was doing was fine  
12 because it was promoting the language and the APIs and more  
13 Java development?

14 MR. JACOBS: Your Honor, objection.

15 THE COURT: I'm sorry?

16 MR. JACOBS: Objection.

17 THE COURT: Being?

18 MR. JACOBS: What Mr. Schwartz -- he can ask him  
19 about Mr. Schwartz's view, but I think to ask him about Sun's  
20 view is improper.

21 THE COURT: Okay. Please --

22 MR. VAN NEST: Yes. I'll just...

23 BY MR. VAN NEST:

24 Q. As CEO -- as CEO, Mr. Schwartz, were you satisfied that  
25 what GNU was doing was fine?

1 A. It was the equivalent to me of what was happening in the  
2 Linux Community, which is an open source implementation that  
3 was in many ways a clone of a product we already had.

4 So, yes, we thought -- there is nothing we could do  
5 to stop it. It didn't mean we were happy about it, but there  
6 was nothing we could do to stop it.

7 Q. And I gather there was nothing you did do to stop it?

8 A. Yes. There was nothing we did to stop it.

9 Q. Did GNU ever have a license from Sun?

10 A. I don't know who is GNU to take a license, but, no, GNU  
11 had no license. The developers responsible for Classpath had  
12 no license to Java.

13 Q. Now, what is Apache Harmony? We have heard some testimony  
14 about Apache Harmony. What is Apache Harmony?

15 A. Apache Harmony is an equivalent to GNU Classpath, but it  
16 uses a separate license. So --

17 Q. First tell us -- let's talk about the Harmony product.  
18 What is the Apache Harmony product?

19 A. So when you are running a browser on your desktop and a  
20 stock ticker application comes up or a weather map comes up,  
21 you are running a Java virtual machine, right? Underneath your  
22 browser is a Java virtual machine that's taking those  
23 instructions, using APIs and doing something.

24 So the most prolific Java virtual machine in the  
25 marketplace was produced by Sun and we delivered it the world



1 over. But there were competitors to Sun's Java virtual  
2 machine, especially when it came to servers. And one of them  
3 was GNU Classpath and the other was Apache Harmony.

4           They didn't get along with one another because they  
5 had different philosophies on how you share open source code.  
6 One of them believed that everything should be open source.  
7 You shouldn't -- you know, you should abide by a common set of  
8 restrictions that forces everybody to deliver their code, and  
9 that was the GNU approach. And the Apache approach was a  
10 little bit more business friendly, but still, you know, you  
11 should be able to make contributions and create a free product  
12 that would be available the world over.

13           So Apache Harmony and GNU Classpath and Sun Java  
14 virtual machine all did the same thing, but only one could be  
15 called Java and that was the one that had, you know, been  
16 branded and blessed by our specification process to be called  
17 Java, and that was Sun's.

18 **Q.** So I take it, Mr. Schwartz, Apache was independent from  
19 Sun, not part of Sun?

20           **MR. JACOBS:** Objection. Leading, your Honor.

21           **THE COURT:** Sustained.

22 **BY MR. VAN NEST:**

23 **Q.** Was Apache independent from Sun?

24 **A.** Apache was funded largely by IBM and Oracle.

25 **Q.** And did Apache ever have a license from Sun to make its

1 platform available?

2 **A.** They were able to take their code and deliver it into the  
3 marketplace, but they didn't want to pay Sun for the privilege  
4 of calling their product Java. So they did not have a license  
5 to call their product Java.

6 **Q.** And --

7 **THE COURT:** That wasn't the question, was it? Did  
8 they have any kind of -- you're talking about a trademark  
9 license now.

10 **MR. VAN NEST:** Did they have --

11 **THE COURT:** Did they have any kind of a license?

12 **THE WITNESS:** I'm not sure to the -- they  
13 participated in our Java Community Process, which was the way  
14 we brought people together to enhance technologies, but they  
15 didn't want to live by the financial requirements of paying Sun  
16 for a license to the brand.

17 And although that's a trademark issue in the Java  
18 world, the trademark issue and the specifications were tied in  
19 the sense that if you passed the test to prove that you were  
20 compatible, then we allowed you to call your product Java  
21 compatible.

22 **BY MR. VAN NEST:**

23 **Q.** But if you didn't, you could still make the product  
24 available, but you couldn't call it Java?

25 **A.** Exactly. Again, we couldn't stop people from creating

1 their own technologies and they could call them, you know,  
2 Black or White or Fred or Bob. It's up to them. That's not  
3 our province.

4 **Q.** Were there commercial companies that adopted the Apache  
5 Harmony platform and put them in commercial products?

6 **A.** Many companies used Apache Harmony's virtual machine, but  
7 understanding the business strategy behind Apache Harmony was  
8 also important, because these same companies that were  
9 contributing to the Apache Foundation, which is the group that  
10 produces -- it's a not-for-profit that produces open source  
11 code. The same companies that were contributing money to  
12 Apache were also paying Sun license fees. And they wanted  
13 leverage against Sun to lower the fees by being able to come to  
14 us and say, "Look, if this is too expensive, we'll just use  
15 Apache. We don't care whether we call it Java any more."

16 So it was very dangerous for Sun. If we gave Apache  
17 a free license, which is what they wanted, then all those  
18 companies that we had been doing business with would come back  
19 and say, "Hey, I can call it Java now and I don't have to pay  
20 Sun anything."

21 **Q.** Can you just give us a couple examples of companies,  
22 commercial companies that use the Apache Harmony platform?

23 **A.** It's been awhile since I've looked, but back then, you  
24 know, some of the biggest funders of Apache were IBM, who was  
25 among our largest customer in paying Sun for rights to use the

1 brand Java. And Oracle was obviously there. BEA, SAP, a  
2 variety of companies in the enterprise space were using Apache  
3 Harmony and were also funding Apache to make it more complete  
4 and more functional.

5 Q. Now, at some point in your tenure at Sun, Mr. Schwartz,  
6 did Sun and Google begin some discussions about a partnership  
7 for a mobile platform?

8 A. Yes. We wanted to -- we wanted them to take a license to  
9 Java and to be able to call their phone a Java Phone in the  
10 marketplace. Why? Because that would create an even bigger  
11 market for Sun.

12 Q. So let me back up a minute.

13 Did you participate in some of the discussions  
14 between Sun and Google concerning Android?

15 A. Yes, I did participate in some of them.

16 Q. Can you tell the jury from Sun's perspective, as CEO, what  
17 was Sun looking for in terms of a relationship? What was the  
18 nature of the relationship you wanted with Google?

19 A. Two things. One mattered a lot more than the other, and  
20 the one that mattered was revenue. You know, we wanted to go  
21 to Google and we wanted them to pay us a big license and a big  
22 fee to be able to call their phone Java, to call it a Java  
23 Phone.

24 And, secondarily, if they had called their phone a  
25 Java Phone, then they could join Nokia, Ericsson, Sony, you

1 know, some of the biggest handset vendors, Motorola,  
2 Blackberry, that had already licensed Java. They could join  
3 them and then from a developer's perspective you could say,  
4 Great. If I run -- if I write a Java application now, I can  
5 run it on a Nokia phone, an Ericsson phone, a Google phone, you  
6 know, an Ericsson phone.

7           So we wanted both. Primarily we wanted revenue. We  
8 wanted to go to them and say, Here are all the things you need  
9 you should buy from us and then we will let you participate in  
10 a marketplace, which at the time was dominated by Nokia. This  
11 was before, really, the iPhone was big or Android was big.

12 **Q.** Was part of the idea to have a partnership where you would  
13 build a new product together?

14 **A.** Part of it was to find ways that would make Google  
15 comfortable, that we would be a good partner with them. Google  
16 wants to -- like almost all companies, Google wants to control  
17 their destiny. So as soon as you take a license to somebody  
18 else's technology, you've now created -- you're now married and  
19 you have to find a way to get along.

20           **MR. VAN NEST:** May I approach, your Honor?

21           **THE COURT:** Yes.

22 **BY MR. VAN NEST:**

23 **Q.** Mr. Schwartz, I would like you to take a look at  
24 Exhibit 435 and tell us whether you can identify that.

1 (Whereupon, document was tendered  
2 to the witness.)

3 **A.** I'm sorry. What was your question?

4 **Q.** Do you recognize Exhibit 435?

5 **A.** I do indeed.

6 **Q.** What is it?

7 **A.** It's an email from me to Eric Schmidt, CEO of Google.

8 **Q.** And the date is?

9 **A.** The 27th of API, 2006.

10 **MR. VAN NEST:** I would move 435 in evidence.

11 **MR. JACOBS:** It's in evidence already, your Honor.

12 Thank you.

13 **MR. VAN NEST:** Already in. Sorry about that.

14 **THE COURT:** Okay.

15 (Document displayed)

16 **MR. VAN NEST:** Could we highlight that second  
17 paragraph?

18 (Document highlighted)

19 **BY MR. VAN NEST:**

20 **Q.** Mr. Schwartz, I'm going to be talking about the document.  
21 It will be on the screen there, but it's also in the paper  
22 copy.

23 You wrote:

24 "I believe this effort is an important  
25 project for both our companies. We're at a

1 critical stage in the industry where we still  
2 have a chance to successfully create an open  
3 platform that can target multiple consumer  
4 devices, but strong momentum around  
5 proprietary platforms is quickly building."

6 A. Yes.

7 Q. Can you tell our jury what did you mean by that?

8 A. Up until that time, up until around 2006, the biggest  
9 handset vendors in the marketplace were companies that matter a  
10 lot less today; Nokia, Motorola, Blackberry. Those were the  
11 big vendors.

12 I'm trying to remember back exactly when Apple  
13 introduced the iPhone, but almost all the handsets in the  
14 marketplace ran Java. And this was good for Sun. We had a,  
15 you know, \$100-plus million business licensing technology and  
16 the brands to those -- to those manufacturers of phones.

17 So with Apple showing up on the scene and Google  
18 working on an Android product, we wanted to go to them and say,  
19 Hey, come join our party. Come join the Java Community. Come  
20 take a license to our products and then we can both, you know,  
21 much more effectively move into the marketplace.

22 Q. And that's the gist of that first paragraph.

23 A. Yes.

24 Q. The next paragraph a little bit down you say:

25 "Sun is ready to embrace Google's innovation

1 in order to make sure Google apps will shine,  
2 however, we are not willing to cede complete  
3 control of the management (hosting,  
4 authorizing, committers) for key components  
5 of the stack."

6 What did that mean?

7 **A.** So when you are a part of the Java Community, there were  
8 benefits, which is you got to participate in a much bigger  
9 market, but you didn't get to determine your own destiny. You  
10 got to sit in a room with a bunch of other people who were in  
11 the Java Community and agree where you can go forward.

12 The downside of that is that can slow things down.  
13 The upside is everybody stays stitched together and that  
14 creates an independent market.

15 So we didn't want Google to be too concerned that all  
16 of that would slow them down. We wanted to find a way to give  
17 them assurances that they could participate in the Java  
18 Community and still get the benefit of having a big community  
19 but not feel bogged down by it.

20 **Q.** Eventually were you able to reach an agreement with Google  
21 auditor not?

22 **A.** No.

23 **Q.** Why not?

24 **A.** Google -- I mean, I can tell you from my perspective, you  
25 know, it was rather opaque. But I would venture a guess that



1 they felt that they could better execute on their own and they  
2 didn't need what we had to offer.

3 Q. Now, was it money? Was money the issue? Did the deal  
4 fall apart because of money or not?

5 A. No. And as I stated in other places, we probably would  
6 have paid them to work with us on a Java Phone because the  
7 imprimatur, the association with Google would have been good  
8 for Sun around the world. We could have said, Hey, we're  
9 working together on a phone, which would have made us more  
10 relevant to a lot of the companies that we were talking to.

11 Q. Now, in the course of your discussions with Google, did  
12 you learn that this Android project would be using the Java  
13 programming language?

14 A. We knew a couple things based on, you know, what was  
15 communicated to us. That they would be using the Linux  
16 operating system, which we talked about before. It's an open  
17 source operating system, but they were going to be using their  
18 own version. They were going to create their own Linux OS.  
19 But they wanted the benefit of having all those Java developers  
20 out in the marketplace building for the phone. So they were  
21 going to use Java and Linux. So that's what we knew.

22 Q. So you knew from that that Android would be based on the  
23 Java language and the Java APIs?

24 A. Yes. As I stated in the first paragraph in this note.

25 MR. JACOBS: Objection, your Honor. That calls for

1 hearsay.

2           **MR. VAN NEST:** I asked him about his knowledge, your  
3 Honor.

4           **THE WITNESS:** I believe Google also had already made  
5 that point clear in the marketplace.

6           **MR. VAN NEST:** Let's wait. Let's wait for the judge.

7           **THE COURT:** Well, if it's being offered to explain  
8 his subsequent conduct or lack thereof, what he was on notice  
9 of would be relevant.

10           **MR. VAN NEST:** That's exactly the point.

11           **THE COURT:** Is that the point?

12           **MR. VAN NEST:** That's exactly the point.

13           **THE COURT:** All right. Well, you can -- it's not  
14 what you knew, but did you have a belief at that point as to  
15 what Google was going to be doing -- what was the rest of your  
16 question?

17           **MR. VAN NEST:** Would Google be using the Java  
18 language APIs?

19           **THE COURT:** All right.

20 **BY MR. VAN NEST:**

21 **Q.** Were you aware that Google was planning to use them in its  
22 product?

23 **A.** Yes. We were aware that they were -- and I believe they  
24 had made statements to the effect that they were creating a  
25 Java Linux phone, so they were not subtle about it.

1 Q. Now, during this period of time -- we're talking about,  
2 2006, 2007 -- was Google a customer of Sun?

3 A. We had tried for years to sell technology to them and it  
4 was very slow going. They tended to invent whatever they  
5 wanted and not buy our products.

6 Q. How about, did you have a toolbar deal with Google at some  
7 point?

8 A. We did.

9 Q. What's the toolbar deal?

10 A. So, when you're, putting, this runtime that runs on  
11 probably all of your PC's at home -- at this point it might be  
12 a little annoying to you, but it would pop up and say, "Hey, an  
13 update is available. Would you like it." And we began to  
14 recognize that we have a very...

15 (Interruption in the proceedings.)

16 **THE COURT:** Do not panic.

17 **MR. VAN NEST:** We've blown the system.

18 **THE COURT:** At various times at 10:00 o'clock that  
19 goes off. Most of the time they do not come on with any  
20 announcement, but let's just pause for a few seconds to see if  
21 this time they do. I'm certain that this is just a test.

22 **MR. VAN NEST:** Is this coming out of my time, your  
23 Honor?

24 **THE COURT:** Sorry. You happen to be standing up.  
25 It's out of your time.

1 (Brief pause.)

2 **THE COURT:** Okay. I don't think there is going to be  
3 any more announcement so let's go ahead. Sorry for the  
4 interruption.

5 **MR. VAN NEST:** Thank you, your Honor.

6 **BY MR. VAN NEST:**

7 **Q.** Mr. Schwartz, I take it you know Eric Schmidt.

8 **A.** I do.

9 **Q.** Did you work with him at Sun?

10 **A.** Yes. He was my first boss.

11 **Q.** And while you were CEO of Google, he was CEO -- excuse me.  
12 While you were CEO of Sun, he was CEO of Google.

13 **A.** Yes.

14 **Q.** And did the two of you talk on a regular basis?

15 **A.** When he was the CEO of Google?

16 **Q.** Yes.

17 **A.** Absolutely not.

18 **Q.** And was there -- did there come a time when he became --  
19 Google became a customer of Sun with this toolbar deal?

20 **A.** Yes. And just to let you know what the toolbar deal was,  
21 because we had Java running on all these computers, we figured  
22 out we could actually deliver an update to the toolbar --  
23 sorry, an update to your PC. And so we thought, who would that  
24 be valuable to? Microsoft and Google. Let's call their CEOs  
25 and have them engage in a bidding war, and we did. And Google

1 ultimately paid us for the privilege of putting their toolbar  
2 into our update stream.

3           So hundreds of millions of computers across the world  
4 would be -- a panel would come up and say, "Would you like this  
5 toolbar?" And if you said yes, you know, Google was better off  
6 and we got to use our distribution power to get that technology  
7 out there.

8 **Q.** Now, sometime in the fall -- I'm going to pull up our  
9 agreed timeline, Mr. Schwartz, just so we have it available.

10           Sometime in the fall of 2007 did you get a heads-up  
11 that Google was about to make an announcement of this mobile  
12 platform that's called Android.

13 **A.** Yes.

14 **Q.** And did you send Eric Schmidt a private note of support in  
15 connection with that upcoming announcement?

16 **A.** I don't recall. I may have.

17 **Q.** Let me ask you to take a look at 3441.

18           (Whereupon, document was tendered  
19 to the witness.)

20 **MR. VAN NEST:** Already in evidence, your Honor.

21           (Document displayed)

22 **BY MR. VAN NEST:**

23 **Q.** And tell us if you recognize 3441, Mr. Schwartz.

24 **A.** I do.

25 **Q.** Let's go to the very bottom of the page and highlight the

1 message there.

2 Is that a message from you to Mr. Schmidt on  
3 November 9th of 2007?

4 **A.** Yes.

5 **Q.** And it says, Subject line, Android.

6 "Let us know how we can help support your  
7 announcements next week - we're happy to do  
8 so. Jonathan."

9 What did you mean there to communicate with Mr.  
10 Schmidt?

11 **A.** Please involve me in your announcement so we can figure  
12 out a way that this will be good for us.

13 (Laughter.)

14 **Q.** Okay. And can we go up to the next, the next one?

15 (Document displayed)

16 **Q.** You get a thank you from him.

17 **A.** Yes.

18 **Q.** (As read)

19 "Thanks, Jonathan. I will review right now.  
20 The SDK is supposed to release an 'early  
21 look' on Monday. Eric."

22 **Q.** Do you know, what an SDK is?

23 **A.** Software Developer Kit.

24 **Q.** What would be contained in a Software Development Kit?

25 **A.** Kind of the basic instructions you would use to create an

1 application for the phone.

2 Q. I take it before the time that you wrote this email, you  
3 knew that Android would use the Java programming language and a  
4 bunch of the Java APIs as well.

5 MR. JACOBS: Your Honor, we are leading again.

6 THE COURT: It is leading.

7 A. We knew because everyone in the industry knew.

8 BY MR. VAN NEST:

9 Q. Now, did you publish a blog post at the time that, around  
10 this time when Android was first released?

11 A. Yes.

12 Q. And on our agreed timeline we have got, "November 2007,  
13 Google releases Android software development kit." Does that  
14 sound about right in time?

15 A. Yes.

16 Q. And why did you publish a blog post in connection with  
17 Android?

18 A. In an attempt to be relevant to the announcement and to  
19 try to engage the Java developers, who were no doubt going to  
20 be excited that a new device was coming out in the marketplace  
21 to Sun's developer offerings.

22 Q. In other words, try to attract some business to Sun as a  
23 result of Android?

24 A. Absolutely.

25 Q. Let's just get you to take a look at Exhibit 2352. This

1 is an exhibit we see almost every day, but we will see it one  
2 more time.

3 (Document displayed)

4 Q. Can you authenticate 2352, Mr. Schwartz? Is that your  
5 blog?

6 A. Yes. That is my blog.

7 Q. Is that the blog you posted in November of 2007?

8 A. That, in fact, is.

9 Q. I want to call your attention -- we've seen a lot of it.

10 MR. VAN NEST: Highlight the second paragraph.

11 (Document highlighted)

12 BY MR. VAN NEST:

13 Q. (As read)

14 "I'd also like Sun to be the first platform."

15 You make a reference to a platform company committing  
16 to a developer environment and throwing Sun's NetBeans  
17 developer platform behind the evidence.

18 What is NetBeans and what were you communicating here  
19 in this paragraph?

20 A. In order to understand this blog, I -- I'm going to give  
21 you an analogy to which we discussed before, and I hope it  
22 makes sense to you.

23 When Linux first arose, it was basically a clone of  
24 Unix, but there was nothing we could do about it. Suing the  
25 people who were creating it would have made it more popular,



1 made it more successful.

2           So when an open source implementation comes onto the  
3 scene that is competing with your product, you really have two  
4 choices. You can try to embrace it and build more value around  
5 the edges, or you can just try to litigate to stop it.

6           This is an instance of our seeing a competitive  
7 product come on the marketplace, a handset that was going to  
8 bypass our brand and our licensing restrictions, and we had two  
9 choices. We could pound on the table and say "Stop" and try to  
10 sue somebody, which would have made it more successful, or we  
11 could grit our teeth, make the best of an uncomfortable  
12 situation and embrace it, and then try to get our products to  
13 support it so anyone who wanted to use it would come to us and  
14 see us as a part of that value chain.

15 **Q.** How does NetBeans fit into that time line?

16 **A.** NetBeans is the product that Sun had that a developer  
17 would use to create an application for a phone. And so we  
18 wanted to say, "Hey, there's this new phone on the market.  
19 Come use NetBeans and you can build applications for it."

20 **Q.** Now, following the announcement and the posting of your  
21 blog, did you continue to make supportive comments in the  
22 market about Android?

23 **A.** Yes, because there would be no point in standing up and  
24 saying, you know, "They are doing something wrong. We didn't  
25 think they were doing anything wrong." We didn't like it, but

1 we weren't going to stop it by complaining about it.

2 Q. And did you actually give interviews in which you said you  
3 thought Android was helping Java?

4 A. I did. And to understand that imagine for a moment that  
5 Google had selected Microsoft Windows. That was the choice.  
6 They could have picked Microsoft Windows or they could pick an  
7 Open Source Java implementation. If you were in our shoes,  
8 which would you prefer?

9 At least if they picked an Open Source Java  
10 implementation, they could be a part of the community. If they  
11 had picked something that was completely variant, it would have  
12 had no utility to us whatsoever.

13 So a simple way of thinking about this when Google  
14 delivered the Android phone, all those university professors  
15 across the world thought, "Great, I can keep teaching Java."  
16 Had they picked Microsoft Windows or another platform, all  
17 those university professors would have said, "Well, there is no  
18 point in teaching Java any more," and that would have been  
19 horrible for Sun's business.

20 Q. I ask you to look at Trial Exhibit 2358 and tell us  
21 whether you recognize that as an interview you gave in early  
22 2008.

23 (Whereupon, document was tendered  
24 to the witness.)

25 A. Yes.

1 Q. It's not in evidence yet.

2 Is that an interview you gave to Engadget Mobile  
3 Interview?

4 A. I did.

5 MR. VAN NEST: I would offer 358 into evidence, your  
6 Honor.

7 MR. JACOBS: Your, Honor it's hearsay and no evidence  
8 of any reliance by Google on it.

9 THE COURT: Sustained on the latter ground for the  
10 time being.

11 MR. VAN NEST: Okay.

12 BY MR. VAN NEST:

13 Q. Sometime after the launch of Android, did you meet with  
14 Mr. Schmidt at Sun?

15 A. Yes.

16 Q. And was anyone else present?

17 A. No.

18 Q. Do you recall approximately when the two of you met?

19 A. I don't recall.

20 Q. It was after this November 2007 time.

21 A. Yes, yes. After the release of Android.

22 Q. At that time was Sun considering building a JavaFx product  
23 on top of the Android platform?

24 A. Yes.

25 Q. And explain to the jurors how that would work? What's

1 JavaFx and how would it work on top of Android?

2 **A.** Despite the fact that Google delivered a phone, the phone  
3 wasn't done, because what really matters to a phone isn't just  
4 the phone, it's the applications that run on top. It's the app  
5 store.

6 So in order for applications to be built, you have to  
7 go recruit a bunch of developers across the world. So what we  
8 wanted to do was to say, "Hey, all of you developers out there  
9 that are interested in building for these next generation  
10 phones, come to us because we will support Android. We will  
11 support Nokia. We will support all these other handsets that  
12 are in the marketplace."

13 So we wanted to do that so that it would limit  
14 Google's ability to say, you know, "Let's take the technology  
15 in this direction and move it away from Sun."

16 If we had the relationship with the developers, we  
17 would have the ability to influence the choices they made  
18 farther downstream. That would be beneficial to our business,  
19 as opposed to allowing somebody else to do it, in which case  
20 they would bias it toward their preferences.

21 **Q.** Was this a project that actually got developed at Sun?

22 **A.** We --

23 **Q.** Actually, let me withdraw that question. I want to go  
24 back.

25 The meeting that you had with Mr. Schmidt.

1 A. Yes.

2 Q. I take it the two of you talked about a variety of topics?

3 A. Yes.

4 Q. And was the main topic how Sun and Google might work  
5 together?

6 A. Yes.

7 Q. That would have spanned a whole variety of areas I assume?

8 A. Yes.

9 Q. Was there also a discussion of Android in your meeting?

10 A. Yes.

11 Q. And can you tell the jurors briefly what you and Mr.  
12 Schmidt discussed on the subject of Android in the meeting you  
13 had at Sun?

14 A. So we were at that point continuing to try to motivate  
15 Google to be a Java licensee, to pay us revenue to call their  
16 phone Java.

17 And so what I was reflecting to Eric in that meeting  
18 was, you know, the carriers, the Verizons and Vodaphones and  
19 Friends Telecoms across the world are saying they are very  
20 suspicious of their ambitions. If you're a Java Phone, it will  
21 calm them down. And the developers we're talking to, they are  
22 very suspicious because it's not really a Java Phone. If you  
23 come talk to us, we can help you with those problems. We can  
24 make your phone a Java Phone, which will enable you to recruit  
25 more developers and have those carriers be a little more

1 willing work with you.

2 Q. In the course of that, did you discuss the JavaFx project  
3 with Mr. Schmidt?

4 A. I'm not sure we did. At that point it was still nascent.

5 Q. Do you remember asking him about the Android licensing  
6 program in the meeting?

7 A. I do. And, again, this was -- we had heard our customers  
8 saying they were very suspicious of Google and they were very  
9 suspicious of the licensing agreements that had been used to  
10 deliver the handset platform.

11 What Google had done is built basically an open  
12 source phone and they were telling everybody the world over,  
13 "Hey, just use our technology and then you can build a phone."

14 So what we were trying to tell Google, "That's fine,  
15 but people are suspicious of picking up your technology. If  
16 you come to us, we can make them less suspicious."

17 Q. Now, following your meeting with Mr. Schmidt, did Sun  
18 actually demonstrate the JavaFx product working on Android at  
19 one of the big developer conferences?

20 A. I believed we did.

21 Q. Do you remember in 2008 a development -- at the JavaOne  
22 development conference, a JavaFx demo?

23 A. I -- I believe we did, yes.

24 Q. And do you remember attending it?

25 A. Vaguely.

1 Q. Do you remember watching the demonstration?

2 A. Vaguely.

3 MR. VAN NEST: Your Honor, I would like to offer in  
4 evidence Trial Exhibit 3103. It's a video of this JavaFX  
5 demonstration of JavaOne in 2008, and I would like to ask Mr.  
6 Schwartz if he can identify it.

7 THE COURT: Any objection?

8 MR. JACOBS: No objection, your Honor.

9 THE COURT: All right. Proceed.

10 MR. VAN NEST: I'm going to play -- could we play TX  
11 3103, Ben?

12 THE COURT: Received in evidence then. 3103,  
13 received in evidence.

14 (Trial Exhibit 3103 received in evidence)

15 BY MR. VAN NEST:

16 Q. And, Mr. Schwartz, you can watch it on your monitor.

17 (Videotape played in open court;  
18 not reported.)

19 Q. Mr. Schwartz, do you recognize that demonstration?

20 A. Absolutely, yes.

21 Q. Were you there that day?

22 A. I was.

23 Q. Were those Sun employees demonstrating the JavaFX on  
24 Android?

25 A. Yes, they were.

1 Q. Now, were there discussions during your tenure as CEO at  
2 Sun about compatibility and complaints from the Java Community  
3 about compatibility issues?

4 A. Yes.

5 Q. Do you remember using the phrase "compatibility is  
6 optional"?

7 A. I don't, no.

8 Q. Do you remember a discussion around the subject  
9 "compatibility is optional" at Sun?

10 A. I remember many discussions about open source technologies  
11 and compatibility of those open source technologies.

12 Q. Let me show you Trial Exhibit 2707, Mr. Schwartz, and ask  
13 you to take a moment to look at it and tell us whether you  
14 recognize it.

15 (Whereupon, document was tendered  
16 to the witness.)

17 A. Yes, I do recognize it.

18 Q. What is it?

19 A. It is one of many presentations around how do we deal with  
20 the Open Source Community, and with Java specifically.

21 MR. VAN NEST: I'd offer 2707 into evidence, your  
22 Honor.

23 MR. JACOBS: Could I ask a couple of additional  
24 questions on his -- on the foundation?

25 THE COURT: Yes.



1           **MR. JACOBS:** Do you specifically recall seeing this  
2 presentation?

3           **THE WITNESS:** No.

4           **THE COURT:** Objection sustained.

5 **BY MR. VAN NEST:**

6 **Q.** Mr. Schwartz, did you -- was this an issue that was  
7 discussed regularly within Sun?

8 **A.** Absolutely, yes.

9 **Q.** And were there a variety of slide decks presented on it  
10 from time to time?

11 **A.** Absolutely yes.

12 **Q.** Is it a subject that you discussed with other folks within  
13 Sun on a regular basis?

14 **A.** Yes.

15 **Q.** Does this slide deck represent -- is it representative of  
16 the materials that you saw from time to time as CEO in this  
17 period?

18 **A.** Yes.

19           **MR. VAN NEST:** I'd reoffer 2707, your Honor.

20           **THE COURT:** You can use it as a demonstrative, but  
21 not -- there is not foundation for it to go into evidence.

22           If the two sides want to stipulate the Rules of  
23 Evidence don't matter any more and anything can be put before  
24 the jury, I'm okay with that, but --

25           **MR. VAN NEST:** I --

1           **THE COURT:** But the Rules of Evidence -- you know,  
2 this shouldn't come into evidence.

3           **MR. VAN NEST:** I'm happy to use it as a  
4 demonstrative.

5           **THE COURT:** All right. You can use it -- if it  
6 really does illustrate the testimony that he is going to be  
7 giving, I'm happy to use it.

8           **MR. VAN NEST:** Could we display the first page to the  
9 jury?

10           No the page before that. I'm sorry. The cover.

11           (Document displayed)

12 **BY MR. VAN NEST:**

13 **Q.** Can you can you tell us just briefly, Mr. Schwartz, the  
14 issues surrounding compatibility is optional what is the issue.

15 **A.** The issue is somebody takes a bunch of code and builds --  
16 like Apache Harmony had done or GNU Classpath had done, they  
17 built a product that was obvious to customers that could be  
18 used as a Java virtual machine.

19           In a sense we were creating multiple potentially  
20 incompatible implementations. We weren't creating them. The  
21 Open Source Community was doing it on their own.

22           So one of the questions was: How should we approach  
23 that? Should we -- you know, should we try to be more liberal  
24 in our licensing policies? Should we just let it continue the  
25 way it's going? Should we, you know, go off and try to

1 litigate against people who were doing that? And so this was  
2 just a discussion that was ongoing because the Open Source  
3 Community continued to build really good and effective products  
4 in the marketplace, but they weren't coming to us to get a  
5 license or to pay for technology.

6 **Q.** Let's take a look at the first page. Says "What's the  
7 Problem?"

8 (Document displayed)

9 **MR. VAN NEST:** Just highlight the first bullet point.

10 (Document highlighted)

11 **BY MR. VAN NEST:**

12 **Q.** (As read)

13 "Our compatibility rules are complex,  
14 intimidating and sometimes difficult to  
15 understand."

16 Is that part of this discussion that you were having  
17 internally at Sun?

18 **A.** So Page 2 does a good job of outlining exactly what the  
19 issues were.

20 And if I could just point you to the second bullet  
21 there.

22 "We're under pressure from licensees,  
23 (particularly in EE)" -- means particularly  
24 the enterprise vendors, IBM, Oracle, SAP, BEA  
25 -- "to change the rules."

1           They didn't like them.

2           **MR. VAN NEST:** Thank you. We can take that off the  
3 screen.

4 **BY MR. VAN NEST:**

5 **Q.** Mr. Schwartz, as CEO of Sun, did you make a decision not  
6 to pursue litigation against Google over Android?

7 **A.** Yes. We didn't feel we had any grounds.

8           **MR. VAN NEST:** I have no further questions, your  
9 Honor.

10          **THE COURT:** All right. Cross examination.

11          **THE WITNESS:** I need to stand for a minute.

12          **THE COURT:** The witness has alerted me that to help  
13 his back, he needs to stand up now and then. I said fine.

14          (Brief pause.)

15          **MR. JACOBS:** Mr. Schwartz, we have something very  
16 much in common.

17          **THE COURT:** What is that?

18          **MR. JACOBS:** Need to stand every once in a while.

19          **THE COURT:** Oh, oh. All right.

20          **MR. JACOBS:** If you see me doing that, your Honor,  
21 it's for a similar reason.

22          **THE COURT:** Are you ready to go?

23          **MR. JACOBS:** Ready to go.

24          **THE COURT:** Are you okay over there?

25          **THE WITNESS:** I am. Thank you, sir.

1           **THE COURT:** Great. Let's go ahead.

2                           **CROSS EXAMINATION**

3   **BY MR. JACOBS:**

4   **Q.** Mr. Schwartz, you were the CEO of Sun, I believe you said,  
5 from 2006 to 2010, is that correct?

6   **A.** It is.

7   **Q.** And it is your testimony that the Java API specifications  
8 are not -- that Sun did not claim that they were protectable;  
9 is that correct, sir?

10 **A.** In our history we -- so, yes, that is exactly the point,  
11 in part based on our history of trying to make open APIs and  
12 compete on implementations.

13 **Q.** And that included not just application developers relying  
14 on the APIs, but competitors implementing the APIs and  
15 providing competing class libraries; correct, sir?

16 **A.** Yes.

17 **Q.** That is your testimony; that Sun did not claim that an  
18 independent implementation of the specifications required a  
19 license, sir?

20 **A.** Yes.

21 **Q.** And so if the jury has seen an email from, say, Andy Rubin  
22 in which he says the APIs are copyrighted and Sun gets to say  
23 whether you can use them and requires a TCK, he would just be  
24 wrong on that; is that true, sir?

25 **A.** No, you are -- what he would be doing is conflating the

1 right to implement those APIs and then calling his product  
2 Java. If he wanted to call his product Java, he would need a  
3 license. If he wanted to independently implement it, he would  
4 not need a license.

5 **Q.** And if his email was clear in distinguishing between the  
6 IP rights and the brand, he would be wrong; correct, sir?

7 **A.** I don't know the language or the email that you're talking  
8 about.

9 What we knew was the Open Source Community was free  
10 to create products, just as Oracle and IBM had created Linux.  
11 You know, Google and others would go off and create, you know,  
12 different handsets. They were independent implementations that  
13 may have used portions of our ideas, but so long as they didn't  
14 use our code proper, they did nothing wrong.

15 **Q.** Since you raised it, Mr. Schwartz, let me show you the  
16 email. It's Trial Exhibit 18.

17 (Whereupon, document was tendered  
18 to the witness.)

19 **THE COURT:** Is it in evidence?

20 **MR. JACOBS:** Yes.

21 (Document displayed)

22 **BY MR. JACOBS:**

23 **Q.** And if you see the string, he's talking -- there's a  
24 question to him about an Open Source J2ME. And the second from  
25 the top of the string, Andy Rubin writes:

1 "Ha. Wish them luck. Java.lang.APIs are  
2 copyrighted and Sun gets to say who they  
3 license the TCK to."

4 And then it goes on:

5 "...and forces you to take the shared part."

6 You say because he didn't say in that email that the  
7 java.lang.APIs are copyrighted and branded, he's just wrong;  
8 right?

9 **A.** The TCKs, the Test and Compatibility Kit, when you passed  
10 that, you were allowed to call your product Java. And in order  
11 to engage in that process, you were basically subjecting your  
12 open source implementation to our constraints. So that's what  
13 he's referring to when he talks about getting access to the  
14 TCKs, is getting access to the brand.

15 So it's not clear to me what he was trying to convey.  
16 I understand, you know, what he wrote, but it's not obvious  
17 what he's meaning.

18 **Q.** And if we go back to that exhibit that Mr. Van Nest was  
19 asking you about, it was 2707.

20 (Document displayed)

21 **Q.** And you were asked about Page 1, and I would like to ask  
22 you about Page 2.

23 And in this background slide it reads:

24 "We created a legal framework in which we  
25 used various mechanisms to require compatible

1 implementations of Java specifications."

2 And it says:

3 "For independent implementers, our  
4 specification licenses grant IP rights only  
5 for implementations that satisfy the  
6 compatibility requirements."

7 You're testimony, sir, is that's incorrect?

8 **A.** Again, we have to be careful about what you call Java  
9 versus what you write at home in your den.

10 **Q.** It doesn't say anything here about calling it Java, does  
11 it, sir? It just says, "In order to create independent  
12 implementations;" correct, sir?

13 **A.** But what it -- that satisfy the compatibility  
14 requirements, which presumes that you have gone through a test.

15 So, you know, I believe the problem that we faced was  
16 if you created an independent implementation, we didn't believe  
17 there was a problem. We believed there was a problem if you  
18 created an implementation and then you went out and told  
19 people, "This is Java." If that happened that obviously  
20 creates confusion and that's what we were trying to stop.

21 **Q.** It doesn't say that here, does it, sir? It just says:

22 "For independent implementations, you have to  
23 satisfy the compatibility requirements."

24 Doesn't it?

25 **A.** If you would like to call it Java. That's why -- you



1 know, the beginning of the slide -- because we wanted to  
2 promote "write once, run anywhere" to ensure that there was one  
3 Java.

4 Again, that's conflating the brand side of things to  
5 call your product Java with your ability to create an  
6 independent implementation. And I think both of those are  
7 addressed in that first paragraph.

8 "Implementations that satisfy the  
9 compatibility requirements."

10 Q. Now, sir, and if Apache thought it needed a TCK license  
11 even if it didn't want to call Apache Harmony Java, they would  
12 be wrong; is that your testimony, sir?

13 A. Now, what was the question again? If --

14 Q. If Apache Harmony --

15 A. Right.

16 Q. (Continuing) -- wished to release -- if Apache Software  
17 Foundation wished to release Apache Harmony and not call it  
18 Java, even though it implements the Java API specifications,  
19 your testimony is that's fine.

20 A. What was frustrating Apache --

21 Q. Sir. Sir. I am on the clock. Can you answer that "yes"  
22 or "no"?

23 A. I'm -- again, you're conflating the brand and the  
24 specification. If they wanted to pass the specification, the  
25 Test Compatibility Kit, the only reason you would do that is

1 you could tell the marketplace you are Java.

2           So there's no way of separating the brand from, you  
3 know, you passed the Test Compatibility Kit. They could  
4 obviously deliver what they wanted in the marketplace, they  
5 just couldn't call it Java.

6 **Q.** And so in the letter that you received from the Apache  
7 Software Foundation, if they just missed that, if they just  
8 missed that they could release Apache Harmony to the world,  
9 including on mobile phones, and not call it Java, they are just  
10 wrong about Sun's licensing.

11 **A.** So I spent a lot of time on this issue and I gave a lot of  
12 interviews on this issue and I was very clear all along. The  
13 Apache Foundation is totally free to ship their code into the  
14 marketplace. They can use whatever they want to go do so. The  
15 only thing they can't do is call their product Java.

16           And we were not going to give them a free license, a  
17 hall pass, to that brand because if they did, Oracle could come  
18 back to us, IBM could come back to us, and they'd say, "Hey, we  
19 don't want to pay any more. We're just going to go use the  
20 Apache Harmony virtual machine and we will say we're Java."

21 **Q.** Let's take a look, please, at Trial Exhibit 917.

22           **MR. JACOBS:** It's already in evidence.

23           (Whereupon, document was tendered  
24 to the witness.)

25           **THE COURT:** 917 in evidence?

1           **THE CLERK:** I don't have it in evidence.

2           **MR. JACOBS:** I'm sorry.

3 **BY MR. JACOBS:**

4 **Q.** Do you recognize this letter to you, sir?

5 **A.** I got a lot of open letters, so...

6           Yes, I recognize it.

7           **MR. JACOBS:** Offer into evidence.

8           **MR. VAN NEST:** No objection, your Honor.

9           **THE COURT:** Received.

10           (Trial Exhibit 917 received in evidence)

11 **BY MR. JACOBS:**

12 **Q.** Do you see in the middle paragraph it says:

13           "Since August, 2006, the Apache Software  
14           Foundation has been attempting to secure an  
15           acceptable license from Sun for the test kit  
16           for Java SE. This test kit, called the Java  
17           Compatibility Kit, or JCK, is needed by the  
18           Apache Harmony project to demonstrate its  
19           compatibility with the Java SE specification,  
20           as required by Sun's specification license.  
21           The JCK license Sun is offering imposes IP  
22           rights restrictions through limits on the  
23           Field of Use available to users of our  
24           software."

25           Do you see that?

1 A. I do.

2 Q. And the Apache Foundation said these restrictions aren't  
3 acceptable to us and they were very unhappy; weren't they, sir?

4 A. Yes, they were.

5 Q. And your testimony is that if they didn't wish to call it  
6 Java, this fight was non-existent?

7 A. I've made that statement time and time again in the media.  
8 They are more than happy to ship their -- or we're more than  
9 happy for them to ship their code. They just can't call it  
10 Java.

11 Q. Including on mobile devices, sir?

12 A. Absolutely.

13 Q. And so if Apache posted a FAQ in which they said that --  
14 in which the question was:

15 "Why doesn't Apache simply ignore this and  
16 ship Harmony without passing the Java  
17 compatibility kit?"

18 And the answer says:

19 "We can ship Harmony without passing the JCK.  
20 It's our source code to do with what we wish,  
21 and we will with milestone releases as we  
22 progress towards completion. However, we  
23 could never claim to be Java compatible,  
24 which is something very important to Java  
25 users and is the stated goal of the project."

1           That's your point, right, that they couldn't claim  
2 they were Java compatible?

3 **A.**   He articulates that eloquently.

4 **Q.**   (As read)

5           "Also, users wouldn't be assured that they  
6 had all necessary IP rights from the specs  
7 contributors. Compatibility is important to  
8 us, as is not putting users in IP jeopardy as  
9 it has been for every JSR the ASF has ever  
10 implemented."

11          That's separate from branding; isn't it, sir?

12 **A.**   I don't know what he's referring to. Apache was very  
13 effective and complete in building a huge diversity of open  
14 source products, and so it's not clear to me why they would be  
15 any more concerned about doing Java work than they would be  
16 about building a web server.

17          And, again, what we were addressing was one very  
18 simple point, which is what he addressed in his first  
19 paragraph. We want to call our product Java and we want  
20 customers the world over to rely upon it as Java and they  
21 wanted that for free. And that would be bad for our business.  
22 That would make -- that would collapse a big revenue stream.

23 **Q.**   And, Mr. Schwartz, if the Apache Software Foundation when  
24 it resigned from the Java Community Process acknowledged that  
25 the specifications on their own, regardless of the branding,

1 were proprietary, they would just be wrong?

2 **A.** I don't know what you're talking about.

3 **Q.** Well, let me show you.

4 **MR. JACOBS:** May I approach, your Honor?

5 **BY MR. JACOBS:**

6 **Q.** 1045 in evidence.

7 (Whereupon, document was tendered  
8 to the witness.)

9 (Document displayed)

10 **A.** When did they write this?

11 **Q.** It says December 9th, 2010, sir.

12 **A.** Oh, that was after my time.

13 **Q.** Well, let me just -- but this is a three-year dispute;  
14 wasn't it, sir?

15 **A.** On our brand, yes, it was. It was probably more than  
16 that.

17 **Q.** Well, let's just take a look at what they wrote and we  
18 will get your best testimony on this.

19 If you look at the last long substantive  
20 paragraph --

21 **MR. VAN NEST:** Objection, your Honor. Lacks  
22 foundation. This is after he retired from Sun.

23 **BY MR. JACOBS:**

24 **Q.** Did you continue to follow the Apache Harmony dispute,  
25 sir?

1 A. Blissfully, no.

2 Q. But your testimony is that if the Apache Software  
3 Foundation wrote:

4 "The JCP is not an open specification  
5 process" --

6 MR. VAN NEST: Objection. Lacks foundation, your  
7 Honor.

8 THE COURT: This is -- I think it does. I know that  
9 both sides have been given much latitude to make argumentative  
10 points and not fact points with these witnesses, but this is  
11 after his time there. I think you should, that -- that  
12 document is already in evidence, right?

13 MR. JACOBS: Yes, your Honor.

14 THE COURT: I think you just save that point for  
15 closing argument.

16 MR. JACOBS: Thank you, your Honor.

17 BY MR. JACOBS:

18 Q. Well, you were at Sun in 2004; were you not, sir?

19 A. I was.

20 Q. And you were what then, COO?

21 A. I believe after April, yes.

22 Q. And you were familiar with Sun's specification license?

23 A. Somewhat, yes.

24 Q. Just somewhat, sir?

25 A. Just somewhat.

1 Q. But your testimony about what Sun required for an  
2 independent implementation of the specifications is based on a  
3 somewhat understanding of the license?

4 A. It's based on a understanding of open source realities and  
5 trying to find ways for our products to be successful in the  
6 marketplace, and not for our legal contracts.

7 Q. Oh. So you aren't talking about Sun's legal position.  
8 You're talking about your business strategy as CEO; is that  
9 right, sir?

10 A. I don't think I'm qualified to speak as a lawyer. I'm  
11 qualified to speak as a leader of the business.

12 Q. I'm sorry. I thought you were saying that Sun had taken a  
13 legal position that the specifications were not protectable.  
14 Did I misunderstand your testimony, sir?

15 A. My point was, we had a business agenda, and we're going to  
16 drive our legal strategy like our pricing strategy like our  
17 marketing strategy to make those technologies successful in the  
18 marketplace.

19 MR. JACOBS: Your Honor, I'm sorry. I used up some  
20 time that I did not need to use.

21 BY MR. JACOBS:

22 Q. I was sure, and I just want to be --

23 MR. VAN NEST: Objection, Your Honor. This is  
24 colloquy. It should be stricken.

25



1 BY MR. JACOBS:

2 Q. I just want to be clear, sir, that when you were  
3 testifying on direct examination about the requirement for the  
4 brand, that was kind of a business position you were taking,  
5 not a view of Sun's legal position; is that correct?

6 A. I'm there to define our business strategy. I'm not there  
7 to write our contracts.

8 I can tell you what we wanted the contracts to  
9 implement, but I wasn't the one writing them. In order for you  
10 to get the brand, you had to pass the TCK. That was the  
11 business agenda. That was our business focus.

12 Q. And your business focus was also to make sure that Apache  
13 Harmony software was not licensed to run on mobile devices;  
14 isn't that, sir?

15 A. So to under- -- so, first of all --

16 Q. Sorry, sir. Yes or no?

17 THE COURT: You can answer that yes or no.

18 THE WITNESS: So can you ask the question again.

19 MR. JACOBS: Read it back, please.

20 (The reporter read the pending question.)

21 THE WITNESS: No.

22 BY MR. JACOBS:

23 Q. So the field of use dispute that you had with Apache  
24 Harmony was not to prevent Apache Harmony from running on  
25 mobile devices and cannibalizing your Java ME a couple hundred

1 million dollars a year revenue stream?

2 **A.** No. The principal objective was to ensure that we could  
3 continue to preserve the value behind the Java brand, and  
4 ensure that our licensees would continue to pay for them.  
5 Those same licensees were the ones who were funding the Apache  
6 Harmony effort.

7 **Q.** Let me ask you to look at a trial exhibit that is not yet  
8 in evidence. 563. This is an e-mail exchange between you and  
9 Scott McNealy; correct?

10 **A.** Yes.

11 **MR. JACOBS:** Offer 563 into evidence.

12 **MR. VAN NEST:** Your Honor, can I have a moment?

13 No objection.

14 **THE COURT:** All right. 563 received.

15 (Trial Exhibit 563 received in evidence.)

16 (Document displayed.)

17 **BY MR. JACOBS:**

18 **Q.** This is an e-mail exchange between you and Scott McNealy  
19 in March of 2007. So we're some months right now before the  
20 release of the Android SDK (indicating). Do you see that?

21 **A.** Yes.

22 **Q.** And you testified to this on direct, Google was not an  
23 easy negotiating partner; correct?

24 **A.** No.

25 **Q.** They -- I forget the exact word. I don't think it was

1 stonewalled, but it was something like that, that you said on  
2 direct. Like opaque, I think you said. Is that right?

3 **A.** They were effective negotiators. They always had options  
4 and alternatives.

5 **Q.** Were they opaque?

6 **A.** Opaque as any other business partner would be.

7 **Q.** Well, Mr. McNealy --

8 **THE COURT:** What does "opaque" mean? What does that  
9 mean to the witness?

10 **THE WITNESS:** They're not showing their cards all the  
11 time.

12 **THE COURT:** All right. Next question.

13 **BY MR. JACOBS:**

14 **Q.** Mr. McNealy wrote to you -- I believe I understand the  
15 carrots on this e-mail. On March 8, 2007 he wrote to you:

16 "The Google thing is really a pain. They are  
17 immune to copyright laws, good citizenship,  
18 they don't share. They don't even call  
19 back."

20 Do you see that?

21 **A.** Yeah.

22 **Q.** So Google was a very difficult negotiating partner;  
23 weren't they, sir?

24 **A.** They were.

25 **Q.** And in Mr. McNealy's view, they were immune to copyright

1 laws; correct, sir?

2 **A.** Yes.

3 **Q.** And did you disagree, in this e-mail exchange, with  
4 Mr. McNealy on that point?

5 **A.** Uhm, I -- I mean, I think there are discussions of  
6 copyright law and Google and YouTube, and whose videos are  
7 they. They were everywhere.

8 **THE COURT:** He's just asking, did you disagree with  
9 what is written there? Did you write back and --

10 **THE WITNESS:** No.

11 **THE COURT:** -- say no?

12 **THE WITNESS:** No, I didn't. I didn't disagree.

13 **THE COURT:** All right. Next question.

14 **BY MR. JACOBS:**

15 **Q.** Okay. Let's take a look at 565, also not in evidence.

16 By the way, before I do that, Mr. McNealy was by then  
17 the chairman of Sun, and you were the CEO; correct?

18 **A.** Yes.

19 **Q.** And chairman of the board; correct?

20 **A.** Yes.

21 **MR. JACOBS:** Sorry, Your Honor. I'm failing to ask.

22 **THE COURT:** No problem.

23 (Document tendered to the witness.)

24 **BY MR. JACOBS:**

25 **Q.** 565 is an e-mail exchanges between you and Vineet Gupta at

1 Sun. Do you see that?

2 A. Yes.

3 Q. And he -- and this is dated 19 September 2007. And so  
4 we're still a couple of months before the release of the SDK;  
5 correct?

6 A. Yes.

7 Q. And Mr. Gupta says to you:

8 "Separately they continue to work on G-phone.  
9 And their engineering has not been open to  
10 re-engage. So don't know if they continue on  
11 the path of a JavaScript/Java bytecode  
12 munging CDC JVM or have moved to Ajax or  
13 something else. If they end up creating a  
14 munge, it will end up in a discussion around  
15 compatibility and licensing around Java."

16 Do you see that?

17 A. Yes.

18 Q. So Mr. Gupta was advising you, Heads up, Mr. CEO, we may  
19 really have to tackle this compatibility and licensing issue  
20 around Java, depending on what Google does; correct?

21 A. Yes.

22 Q. Let's take a look at another exhibit, 1056.

23 THE COURT: Was there one called 565?

24 MR. JACOBS: Yes.

25 THE COURT: Was it offered in evidence?

1           **MR. JACOBS:** Oh, I'm sorry. I certainly intended to.  
2 I offer 565 in evidence.

3           **MR. VAN NEST:** No objection, Your Honor.

4           **THE COURT:** Received.

5           (Trial Exhibit 565 received in evidence.)

6           **THE COURT:** What's the next one?

7           **MR. JACOBS:** 1056.

8           **THE COURT:** Go ahead.

9           **MR. JACOBS:** Hold on. Could you just publish that,  
10 for a minute, to the jury, on 565. The last paragraph.

11           (Document displayed.)

12           **MR. JACOBS:** Thank you.

13 **BY MR. JACOBS:**

14 **Q.** Are you looking at 1056, Mr. Schwartz?

15 **A.** I am.

16 **Q.** And 1056 is an e-mail exchange between you and others at  
17 Sun around March 26, 2008.

18           Do you see that?

19 **A.** Yes.

20 **Q.** So now this is after the SDK, but before the first phone;  
21 correct?

22 **A.** Yes.

23 **Q.** And you write:

24           "I was with my Google buddy over the  
25 weekend."

1 I think this is your -- is the double indent your  
2 writing, sir?

3 A. Yes.

4 Q. (As read:)

5 "... was with my Google buddy over the  
6 weekend and we got to talking about licenses.  
7 He made some pretty interesting comments  
8 about their internal (as communicated by  
9 senior managers) view of licenses. They hate  
10 GPL, they like Apache, and they love BSD.  
11 Just like Microsoft."

12 Do you see that?

13 A. Yes.

14 Q. Now, you had released OpenJDK under the GPL; correct, sir?

15 A. Yes.

16 Q. And the GPL is a give and give back open source kind of  
17 license; correct?

18 A. It is a give and force back license.

19 Q. And by "force back" you mean that if the recipient of code  
20 under the GPL refuses to comply with GPL requirements, the  
21 copyright holder can force, through a copyright infringement  
22 lawsuit, compliance with the GPL; correct?

23 A. Exactly.

24 MR. JACOBS: I offer 1056 into evidence.

25 MR. VAN NEST: No objection, Your Honor.

1           **THE COURT:** Received.

2           (Trial Exhibit 1056 received in evidence.)

3   **BY MR. JACOBS:**

4   **Q.** And you thought that the GPL was appropriate for OpenJDK;  
5 correct?

6   **A.** Achieving our business objectives, yes.

7   **Q.** And your business objectives included getting the code out  
8 there so that people could see the code; correct?

9   **A.** Yes.

10   **Q.** And inviting, actually forcing, contributions back into  
11 the code base by people who took OpenJDK; correct?

12   **A.** The other agenda was to try to meld with the Linux  
13 community. And the Linux community used a GPL license.

14           If we had used another license, it wouldn't have been  
15 compatible. So we wanted to create an integration between Java  
16 and Linux.

17   **Q.** You didn't choose the Apache license; did you?

18   **A.** We did not.

19   **Q.** And the Apache license is actually incompatible with the  
20 GPL because the Apache license doesn't have the give and  
21 force-back requirement; correct?

22   **A.** Yes. Some people think the GPL is incompatible with  
23 Apache.

24   **Q.** And Google chose the Apache license -- ultimately, chose  
25 the Apache license for Android; correct?



1 A. Yes.

2 Q. Yes. And you didn't actually know what the ultimate  
3 Android phones would be released under in March of 2008;  
4 correct, sir?

5 A. We were presuming it would be the GPL code.

6 Q. You were presuming that Android would be released under  
7 the GPL in March of 2008?

8 A. Uhm, prior to the release of Android, we were presuming  
9 they were going to be using GPL code.

10 Q. So in November of 2007, when you praised/welcomed Android,  
11 you thought Android was going to be released under the GPL?

12 A. No. I think at that point it was clear it was being  
13 released under Apache.

14 Q. I thought you just said in March of 2008, until the phone  
15 just came out, you thought it was going to be under the GPL?

16 A. No. I think you misunderstood. Prior to the release of  
17 the SDK, we didn't know what license would be picked. As soon  
18 as we knew what license would be picked, that's when we, you  
19 know, made our statements.

20 Q. So, actually, your blog post, which is before the release  
21 of the SDK, that is before you knew it was under -- it was not  
22 under the GPL?

23 A. I think at that point we knew -- I don't -- I don't know  
24 for certain -- at that point, we knew it was not going to be  
25 our code, it was not going to be the GPL base.

1 Q. And it was not going to be released under the GPL;  
2 correct, sir?

3 A. Uhm, I'm not sure we knew what license was going to be  
4 used. We just knew it was not going to be our code and,  
5 therefore, our license.

6 Q. I've learned a technique from one of my colleagues, which  
7 is if I know something that you don't know, I raise my hand to  
8 warn you. So I'm warning you, I have some e-mails on this.

9 So I just want to ask you again, is it your testimony  
10 that you knew that as of the blog post, the Android platform  
11 developed by Google using Java APIs, was going to be released  
12 under the Apache Software License?

13 A. I cannot claim to recall whether I knew the license that  
14 was going to be selected. What I knew was that they were  
15 announcing a phone and we wanted to be a part of it.

16 Q. Now, if we scroll up a little bit in 1056, you get another  
17 e-mail from one of your Sun colleagues:

18 "It's funny with Google. They take without  
19 paying."

20 And then he lists all the things that he's ang- --  
21 that he's sort of joking about, Google taking with paying. And  
22 then you say:

23 "I so totally agree with you. We all do.

24 They also take Java for Android, without

25 attribution or contribution. This is why I

1 love scroogle," with a smiley face.

2 Do you see that?

3 A. Yes.

4 Q. And scroogle is a website. You have a link down there;  
5 right?

6 A. Yes.

7 Q. So you were agitated, as of March 2008, that Google was  
8 taking Java for Android without attribution or contribution;  
9 correct?

10 A. Yes.

11 THE COURT: Is this document in evidence? What  
12 number is this document?

13 MR. JACOBS: 1056. I believe I moved it in.

14 THE COURT: That's in evidence. All right.

15 MR. JACOBS: Yes.

16 BY MR. JACOBS:

17 Q. So now let's take a look at 1057, which I believe is in  
18 evidence. All right. Let's take a look at 1057.

19 MR. JACOBS: May I?

20 (Document tendered to the witness.)

21 (Document displayed.)

22 BY MR. JACOBS:

23 Q. 1057 is an e-mail covering a Java NU presentation.

24 Do you see that?

25 A. Yeah.

1 Q. Are you on one of these e-mail distribution lists; sir?

2 A. I don't believe so.

3 Q. Did you review the final version of this presentation  
4 before it was presented at JavaOne?

5 A. I don't believe so.

6 Q. Did you review, before JavaOne in 2008, what Rich Green  
7 was going to say about Android?

8 A. No, I don't believe so.

9 Q. Let me ask you about 530, which refers to you.

10 MR. JACOBS: May I?

11 THE COURT: Yes.

12 MR. VAN NEST: Your Honor, this exhibit is not yet in  
13 evidence.

14 MR. JACOBS: It is not in evidence.

15 BY MR. JACOBS:

16 Q. Do you see that 530 refers to what you -- to a Jonathan  
17 who had suggested something?

18 A. That would be me.

19 MR. JACOBS: Your Honor, I offer 530 in evidence.

20 MR. VAN NEST: No foundation, Your Honor.

21 MR. JACOBS: He's testified that the reference is to  
22 him.

23 THE COURT: Well, but that doesn't make it  
24 admissible.

25 MR. JACOBS: I can ask him about the e-mail, Your

1 Honor.

2 **THE COURT:** Go ahead.

3 **BY MR. JACOBS:**

4 **Q.** Did you suggest a -- so we're looking at October 1, 2008.

5 Do you see that, Mr. Schwartz?

6 **A.** Yes.

7 **Q.** And this is after the SDK but before the first Android  
8 phone.

9 Do you see that?

10 **A.** Yes.

11 **Q.** Did you suggest a license to Google that:

12 "... enables them to make Dalvik compatible,  
13 get the Java brand. And anyone downstream  
14 that wanted the brand and IP protection would  
15 need to come back to Sun for the license as  
16 well. I assume TCK."

17 Do you see that?

18 **A.** Yes.

19 **Q.** And did you have that proposal?

20 **A.** Did I make that proposal to Eric?

21 **Q.** Did you have that in mind as a possible solution to the  
22 problems posed by Android for Sun?

23 **A.** Yes. That if they wanted to use our brand, they would  
24 need to get a license. And that would, again, grow the Java  
25 community.

1 Q. So now let me ask you about 2070, which is not yet in  
2 evidence.

3 MR. JACOBS: May I?

4 BY MR. JACOBS:

5 Q. This is an e-mail exchange between you and Vineet Gupta on  
6 October 23rd; is that correct, sir?

7 A. Yes, it is.

8 MR. JACOBS: Offer in evidence.

9 MR. VAN NEST: Your Honor, this is not on the list of  
10 disclosed exhibits, I do not believe. If I could have just a  
11 moment.

12 What's the number, Counsel?

13 THE COURT: 270, I believe. Correct?

14 MR. JACOBS: 2070.

15 THE COURT: 2070. All right.

16 MR. VAN NEST: Apologies, Your Honor. It's on the  
17 list. We misheard.

18 THE COURT: Any objection?

19 MR. VAN NEST: No objection.

20 THE COURT: Thank you received.

21 (Trial Exhibit 2070 received in evidence.)

22 THE COURT: Go ahead.

23 BY MR. JACOBS:

24 Q. So on 2070 is an exchange between you, Vineet Gupta, and  
25 Brian Sutphin?

1 A. Yes, that's correct.

2 Q. And in this e-mail exchange there's a discussion at the  
3 bottom now regarding the Android discussion.

4 Do you see that?

5 A. Yes.

6 Q. And if you turn to the next page, and you look at the "so  
7 either" paragraph.

8 A. Yes.

9 Q. And this is Vineet writing to you; right, sir?

10 A. Yes.

11 Q. (As read:)

12 "So either we find a way to work together or  
13 they become our biggest competition with  
14 Android."

15 Do you see that?

16 A. Yes.

17 Q. (As read:)

18 "And we fight through" -- there's a  
19 parentheses, Java ecosystem, et cetera.  
20 "We fight through Sun's Java, JavaFX,  
21 AppStore, and lose [sic] alliance of  
22 OEMs/SPs."

23 Do you see that?

24 A. Yes. "Loose alliance of OEMs and SPs."

25 Q. Thank you.

1 And then he says:

2 "Then, of course, there's the IP patents  
3 hammer."

4 Do you see?

5 **A.** Yes.

6 **Q.** So Sun, as October 23rd, 2008, was considering using the  
7 IP patents hammer to bring Google into Java compliance;  
8 correct, sir?

9 **A.** No. I think Vineet was considering that.

10 **Q.** Now, you never told Mr. Schmidt or anyone else at  
11 Google --

12 **MR. JACOBS:** Actually, I withdraw that, Your Honor.  
13 Let's take a look at 205. I believe this is in evidence.

14 (Document displayed.)

15 **BY MR. JACOBS:**

16 **Q.** You're copied on an e-mail exchange with Scott McNealy.  
17 We're back in 2006.

18 **A.** Yes.

19 **Q.** And McNealy writes to Eric Schmidt at Google:

20 "Thanks for the note. Jonathan and the team  
21 are on top of this. I'm worried about how  
22 we're going to replace the revenue this is  
23 likely going to submarine."

24 Do you see that?

25 **A.** I do.



1 Q. And there was a very substantial risk that Android would  
2 submarine Java revenue; wasn't there, sir?

3 A. No. I mean, there was competition that Android would  
4 provide in the marketplace to our existing Java OEMs.

5 Q. You invested a lot in Java during your tenure; didn't you,  
6 sir?

7 A. Yes.

8 Q. And Sun invested a lot in the creation and evolution of  
9 the Java APIs while you were at Sun?

10 A. Yes, we did.

11 Q. And the APIs were very significant -- are a very  
12 significant asset for a company; correct, sir?

13 A. Yes.

14 Q. Now, Google has brought you to testify in their case. You  
15 understand that, sir?

16 A. No. I've been subpoenaed. So I'm testifying.

17 Q. But they are the ones who invited you here?

18 A. Sure. Yes.

19 Q. And you were the former CEO of Sun?

20 A. Yes.

21 Q. And Sun became Oracle America, the plaintiff here;  
22 correct?

23 A. Yes.

24 Q. And so Oracle America's opponent brought you to this  
25 trial, believing your testimony would be favorable. You

1 understand that?

2 **A.** I was waiting for Oracle to invite me.

3 **THE COURT:** That's not the question.

4 **THE WITNESS:** Yes, I understand.

5 **THE COURT:** The question is, when you came here did  
6 you think that Google thought you would help them?

7 **THE WITNESS:** If they invited me, I assume they  
8 thought I had value to add.

9 **THE COURT:** Okay.

10 **BY MR. JACOBS:**

11 **Q.** And you were the CEO of Sun from 2006 to 2010; correct,  
12 sir?

13 **A.** Yes. April.

14 **Q.** April of?

15 **A.** 2006.

16 **Q.** And when did you -- when were you no longer CEO of Sun in  
17 2010?

18 **A.** February.

19 **Q.** The day the acquisition closed?

20 **A.** Pretty much.

21 **Q.** Pretty much or exactly?

22 **A.** Exactly.

23 **Q.** Upon Oracle buying Sun, you were terminated as CEO;  
24 correct?

25 **A.** I believe I resigned. They already had a CEO.

1 Q. And before that, Mr. Sutphin had been put in place as the  
2 person to make major business decisions at Sun, by the board of  
3 Sun; isn't that correct, sir?

4 A. I was still the CEO. Oracle was frustrated with my  
5 guidance.

6 Q. Is what I said correct, sir?

7 A. Uhm, no. I was still the CEO of Sun.

8 Q. Mr. Sutphin was placed in decision-making -- in a  
9 decision-making position?

10 A. Mr. Sutphin led the integration activities between Oracle  
11 and Sun.

12 Q. And before you were -- before you resigned, and to use  
13 your word, as the CEO of Sun, Sun's business was suffering  
14 quite a bit. Wasn't it sir?

15 A. The acquisition definitely made life a lot harder for us.

16 Q. Even before the acquisition, sir, Sun's business was  
17 suffering quite a bit; wasn't it?

18 A. Yes. The financial crisis made it quite difficult.

19 Q. And you had to, in fact, lay off thousands of employees?

20 A. Yes, we did.

21 Q. And one of the things that Oracle insisted on in making  
22 sure that you were not in a decision-making position was to  
23 ensure that the layoffs stop; isn't that true, sir?

24 A. That is absolutely false.

25 MR. JACOBS: No further questions.

1           **MR. VAN NEST:** Your Honor, I would like to move 2707  
2 into evidence. Counsel examined extensively on it, and I think  
3 now it's been discussed it ought to be in evidence.

4           **MR. JACOBS:** No objections, Your Honor.

5           **THE COURT:** 2707?

6           **MR. VAN NEST:** Yes, 2707.

7           **THE COURT:** I'm sorry, did you say "no objection"?

8           **MR. JACOBS:** No objection.

9           **THE COURT:** All right. Well, then, it was not in,  
10 but it was used for illustration. But now it's in for all  
11 purposes.

12                   (Trial Exhibit 2707 received in evidence.)

13           **MR. VAN NEST:** Thank you, Your Honor.

14                   **REDIRECT EXAMINATION**

15 **BY MR. VAN NEST:**

16 **Q.** You mentioned, Mr. Schwartz, that there were some  
17 companies that were funding Apache Harmony?

18 **A.** Yes.

19 **Q.** Who were they?

20 **A.** Oracle, IBM, others.

21 **Q.** Okay. And were you saying exactly the same thing about  
22 Apache Harmony back in the day that you said today on the  
23 witness stand?

24 **A.** Absolutely, yes.

25 **Q.** I'd like to show you what's been marked as Exhibit 2341.

1 Do you recognize that as a press report of a comment  
2 you made? And let me call your attention --

3 **MR. VAN NEST:** This is not yet in evidence, Your  
4 Honor.

5 **BY MR. VAN NEST:**

6 **Q.** Let me call your attention to the middle of the page.

7 **MR. VAN NEST:** Can we highlight for Mr. Schwartz,  
8 "Jonathan Schwartz CEO at Sun."

9 **BY MR. VAN NEST:**

10 **Q.** Is that an accurate report of a comment you made sometime  
11 in 2007?

12 **A.** Yes is.

13 **Q.** May. What comment did you make?

14 **A.** There is no reason that Apache cannot ship the product  
15 they built. The one thing they can't do is call it Java. They  
16 can ship their code. They are free to do so.

17 **MR. VAN NEST:** I would offer 2341 in evidence, Your  
18 Honor.

19 **MR. JACOBS:** So long as it's clear the exhibit did  
20 not say what the witness just said he said.

21 **MR. VAN NEST:** I'll move it into evidence, Your  
22 Honor. Is there an objection?

23 **MR. JACOBS:** Hearsay.

24 **THE COURT:** 2341 will be received as arguably a prior  
25 consistent statement.

1 (Trial Exhibit 2341 received in evidence.)

2 **MR. JACOBS:** That is my objection, Your Honor, but I  
3 understand your ruling.

4 **THE COURT:** Well, the -- no, there was a suggestion  
5 of recent fabrication. And for that purpose the document can  
6 come in.

7 Now, I'm not clear whether it's consistent or not.  
8 It arguably is. I'll read what it says here because the  
9 witness didn't read it correctly.

10 **MR. VAN NEST:** Your Honor, can we display it for the  
11 jury so they can see it?

12 **THE COURT:** Of course. We'll let them read it for  
13 themselves. It didn't quite say the same thing. There may  
14 have been a paraphrase. So please look at it for yourself.

15 (Document displayed.)

16 **BY MR. VAN NEST:**

17 **Q.** And let me show you what's been marked as Trial Exhibit  
18 2195. Do you recognize that?

19 **A.** Yes, I do.

20 **Q.** What is it?

21 **A.** It's a communication between myself and John Fowler, who  
22 at the time, I believe, was heading our systems business.

23 **Q.** What's the date?

24 **A.** It's March of 2008.

25 **MR. VAN NEST:** Offer 2195 in evidence, Your Honor,

1 for the same purpose.

2           **MR. JACOBS:** Just a minute, Your Honor. Yes. No  
3 objection.

4           **THE COURT:** All right. What is the number again?

5           **MR. VAN NEST:** 2195.

6           **THE COURT:** Received in evidence.

7           (Trial Exhibit 2195 received in evidence.)

8           **MR. VAN NEST:** Could I have it on the screen please,  
9 Ben. And could we pick up the whole e-mail -- up to the top.  
10 Up to the top. Just give me the whole thing there. Down to --  
11 there we go.

12           (Document displayed.)

13 **BY MR. VAN NEST:**

14 **Q.** Now, is this an e-mail you sent back in 2008,  
15 Mr. Schwartz?

16 **A.** Yes.

17 **Q.** Is Mr. Fowler another employee at Sun?

18 **A.** Yes, sir.

19 **Q.** He was asking you, What's the Apache issue? Hardware  
20 support. Correct?

21 **A.** Yes.

22 **Q.** And then you responded to him in this first paragraph,  
23 right?

24 **A.** Yes.

25 **Q.** And let me just drop to the very bottom comment:

1 "But the code's available, to be clear - just  
2 not the brand."

3 What do you mean by that?

4 **A.** As we've discussed, they can take the code. They can ship  
5 it into the marketplace. They can run it wherever they wish.  
6 What they are not allowed to do is call it Java without having  
7 a license from us that would cause them to pay us.

8 **Q.** Did you consider Android to be a fragment of Java?

9 **A.** It's a -- a -- it's a hard question. It was additive to  
10 the community because it brought more Java developers onboard  
11 and working in this new space. But it wasn't additive to the  
12 brand because they weren't using our brand. So it was  
13 simultaneously a threat and an opportunity.

14 **Q.** Do you have Exhibit 1056 up there? I'm sorry. Hold on.  
15 I've got my exhibits wrong. You do, but that's not what I  
16 wanted to ask you about.

17 Take a look at Exhibit 1055. Do you recognize that?

18 Is this an e-mail you wrote, Mr. Schwartz, to someone  
19 at Sun in November of 2007?

20 **A.** Yes.

21 **Q.** And does this reflect your views at the time?

22 **A.** Yes.

23 **MR. VAN NEST:** And I'd offer 1055 in evidence, Your  
24 Honor.

25 **MR. JACOBS:** No objection.



1           **THE COURT:** Received.

2           (Trial Exhibit 1055 received in evidence.)

3           **MR. VAN NEST:** Could I have the first paragraph,  
4 please.

5 **BY MR. VAN NEST:**

6 **Q.** That says:

7           "A separate implementation isn't a fork so  
8 long as Google agrees to certify their  
9 platform as compliant with the Java  
10 specification. If they don't, they won't be  
11 able to call it Java - we should ask the  
12 press to ask Google if their platform will be  
13 compliant with Java specification. Let's get  
14 them on the defense."

15           Was that your view at the time?

16 **A.** Yes.

17 **Q.** If they had -- if they wanted to be called Java, they had  
18 to pass all the tests; right?

19 **A.** Yes.

20 **Q.** But they were free to do their own innovation if they  
21 didn't want to call themselves Java?

22 **A.** But they would have to create their own community from  
23 whole cloth. They have to reinvent a whole new community.

24           **MR. VAN NEST:** I have nothing further, Your Honor.

25           **THE COURT:** Okay. Anything more?

1           **MR. JACOBS:** One more. May I approach?

2           **THE COURT:** You may.

3           **MR. JACOBS:** I'm showing the witness 2371.

4                           **RECROSS EXAMINATION**

5 **BY MR. JACOBS:**

6 **Q.** Is this an e-mail exchange between you and John Markoff,  
7 of the *New York Times*?

8 **A.** Yes, it is.

9           **MR. JACOBS:** Offer in evidence.

10          **MR. VAN NEST:** No objection, Your Honor.

11          **THE COURT:** 2371 is received.

12                   (Trial Exhibit 2371 received in evidence.)

13 **BY MR. JACOBS:**

14 **Q.** November 6, 2007, after your blog post; correct, sir?

15 **A.** Yes.

16 **Q.** And John Markoff writes:

17                   "Hi, Jonathan. How the heck is Java going to  
18                   be part of the Apache Distro that the Android  
19                   software is being given away under? Is this  
20                   a legal issue between you and Google? How  
21                   come they are using Java and you aren't part  
22                   of their alliance? Inquiring minds" -- et  
23                   cetera -- "John Markoff."

24                   Do you see that?

25 **A.** Yes.

1 Q. John Markoff is a very prominent reporter on the  
2 technology community; correct, sir?

3 A. Yes.

4 Q. And for *The New York Times*, a very prominent newspaper;  
5 correct, sir?

6 A. Yes.

7 Q. And so you answered his e-mail; did you not?

8 A. I did.

9 Q. And you wrote -- the subject, by the way: "I don't get  
10 it." Do you see that?

11 A. Yes.

12 Q. Because he can't understand, having followed Sun's  
13 history, how it's possible that Android could be using Java and  
14 not be compatible, et cetera; right, sir?

15 A. And he wants to fish for a story.

16 Q. (As read:)

17 "Off the record ... God knows. They didn't  
18 want us to open source Java."

19 This is your response. Do you see that?

20 A. Yes.

21 Q. (As read:)

22 "They've already made some stupid comments  
23 about GPL, the license of both Java and  
24 Linux, the foundation of what they're  
25 building. As for how they avoid those

1 licenses, I don't know. They've shown a  
2 frankly stunning naivety about free software.  
3 Even their alliance seemed all over the map,  
4 with second tier hardware guys and carriers."  
5 Do you see that?

6 **A.** Yes.

7 **Q.** And that was what you told John Markoff on November 6,  
8 2007; correct, sir?

9 **A.** Yes.

10 **Q.** And you weren't -- you weren't trying to misdirect or  
11 mislead him; were you?

12 **A.** I was trying to get him to write a story about how they  
13 need the Java brand.

14 **Q.** Can you answer my question?

15 **A.** I'm sorry. Your question?

16 **Q.** You're trying to mislead him?

17 **A.** Oh, absolutely not.

18 **MR. JACOBS:** Thank you, sir.

19 **THE COURT:** May the witness step down?

20 **MR. VAN NEST:** He may, Your Honor.

21 **THE COURT:** All right. You're discharged from the  
22 subpoena, Mr. Schwartz.

23 **THE WITNESS:** Thank you.

24 **THE COURT:** Have a great day.

25 **THE WITNESS:** You, too.

1 (Witness excused)

2 **THE COURT:** I think it's time for a break.

3 Ms. Gonzalez, are you doing okay?

4 **JUROR MS. GONZALEZ:** Yeah.

5 **THE COURT:** Everybody else over there feeling good?

6 (Jurors respond affirmatively.)

7 **THE COURT:** We'll take a 15-minute break. Remember  
8 the admonition.

9 **THE CLERK:** All rise.

10 (Jury out at 11:07 a.m.)

11 **THE COURT:** Have a seat. Any issues for the judge?

12 **MR. JACOBS:** Not from us, Your Honor.

13 **MR. VAN NEST:** No, Your Honor.

14 **THE COURT:** Just a small point. I did practice for  
15 25 years, and tried a lot of cases. And I've -- I've never  
16 heard of a hand signal --

17 (Laughter)

18 **THE COURT:** -- that -- something like that. Where  
19 did that come from?

20 Here's the thing. Be careful on that, and here's the  
21 reason for it. You know that I tell the jury not one word the  
22 lawyers ever say is evidence. So if you were to raise your  
23 hand and sort of signal to the jury that you got some  
24 impeaching material, and it never gets used -- you know, I know  
25 you didn't mean it that way, but it could be taken that way.

1 So I would just as soon we do this part of the trial in the  
2 normal way, and no hand signals to anybody.

3 **MR. JACOBS:** Thank you, Your Honor. I understand.

4 **THE COURT:** We'll take 15 minutes ourselves.

5 (Recess taken from 11:09 to 11:23 a.m.)

6 **THE COURT:** Okay. On the record.

7 **MR. VAN NEST:** Not quite, Your Honor. A heads up for  
8 Your Honor. I think you'll need to explain to the jury what's  
9 happening next.

10 **THE COURT:** What's that?

11 **MR. VAN NEST:** We are still in our case, but we are  
12 accommodating Oracle. This is someone they are calling, not  
13 us, and he is part of their rebuttal. I thought you would give  
14 the jury a little explanation.

15 **THE COURT:** Another famous person.

16 **THE WITNESS:** Where?

17 **THE COURT:** Mr. McNealy.

18 **THE WITNESS:** Yes.

19 **THE COURT:** Mr. McNealy will be next. I'll explain  
20 that.

21 **MR. VAN NEST:** I want to make sure it's clear he's  
22 being called by Oracle.

23 **THE COURT:** Now, tomorrow, at 2:15, we will have our  
24 charging conference. And I will give you, when we adjourn at  
25 1:00 o'clock, a draft set of instructions and a revised special

1 verdict form.

2 But I'm going to leave question 2 in there for now,  
3 but I am very -- I'm not sure whether it should stay in there  
4 for reasons we previously stated.

5 So just put 2:15 on your calendar for tomorrow, is  
6 the main thing.

7 **MR. VAN NEST:** And the instructions, Your Honor,  
8 we'll get those today at 1:00, or tomorrow at 1:00?

9 **THE COURT:** Today at 1:00. You'll have overnight to  
10 look at them.

11 **MR. VAN NEST:** Thank you.

12 **THE COURT:** All right. Let's bring in the jury.

13 **THE CLERK:** All rise.

14 (Jury enters at 11:25 a.m.)

15 **THE COURT:** Welcome back. Please be seated.

16 Ms. Gonzalez, are you okay?

17 **JUROR MS. GONZALEZ:** Yes.

18 **THE COURT:** Doing good. That's a nice smile, so  
19 maybe you're improving as we go.

20 All right. I have a -- I need to give you a heads up  
21 about what we're going to do here. The next witness is going  
22 to be Mr. McNealy, who you've heard about. And he's being  
23 called by Oracle in its rebuttal case, even though Google  
24 hasn't yet finished its actual defense.

25 And the reason that he's being called out of order,

1 so to speak, is to accommodate his schedule because he cannot  
2 be here tomorrow.

3 So the lawyers worked this out. And good for them.  
4 I appreciate their finding a way to accommodate the witness.

5 But I say this to you so you'll understand that we  
6 are jumping ahead a bit to the rebuttal case, and then we will  
7 jump back, as soon as this witness is over, and pick up where  
8 we were with the Google defense.

9 Mr. Boies, you may call your next witness.

10 **MR. BOIES:** Thank you, Your Honor. We call Mr. Scott  
11 McNealy.

12 **THE COURT:** Please stand and raise your right hand.

13 **SCOTT MCNEALY,**  
14 called as a witness for the Plaintiff herein, having been first  
15 duly sworn, was examined and testified as follows:

16 **THE WITNESS:** I do.

17 **THE CLERK:** Okay. Thank you.

18 **THE COURT:** All right. Welcome, again. And you got  
19 to -- you've got a lot of bottles of water there. Are both of  
20 those yours?

21 **THE WITNESS:** No. I don't know where this one came  
22 from.

23 **THE COURT:** Let me have that one.

24 But you need to sit so that you're about this close.

25 **THE WITNESS:** This good?



1           **THE COURT:** That's perfect.

2           Go ahead, counsel.

3                           **DIRECT EXAMINATION**

4 **BY MR. BOIES:**

5 **Q.** Good afternoon.

6 **A.** Good afternoon.

7 **Q.** Good morning.

8 **A.** Good morning.

9 **Q.** Where did you go to school, sir?

10 **A.** Uhm, I went to college at Harvard.

11 **Q.** And did you do graduate work?

12 **A.** Stanford MBA.

13 **Q.** And after you graduated from Stanford, what did you do?

14 **A.** I worked for FMC Corporation for a while. Moved out here  
15 and then went to work at Onyx Systems in the valley. And then  
16 started Sun Microsystems in February of 1982.

17 **Q.** In 1982, were you one of how many people?

18 **A.** There were four of us who co-founded it. I was the  
19 operations manager. A couple of years into it, I became CEO on  
20 a temporary basis. And about 22 years later I finally found a  
21 replacement.

22                   (Laughter)

23 **Q.** So you would have been CEO from 1984 to 2002; is that  
24 correct?

25 **A.** Yes, approximately.

1 Q. Or 2006?

2 A. 2006.

3 Q. 2006. My arithmetic was wrong. 2006.

4 Now, you said you were also CEO and chairman. Did  
5 you continue as chairman after you passed the CEO position on  
6 to someone else?

7 A. Yes, I was chairman until change of control at the Oracle  
8 acquisition.

9 Q. Now, was Sun struggling during the last years that you  
10 were chairman of the company?

11 A. Uhm, life is always a struggle. I call it the pinata to  
12 be a CEO.

13 But, yeah, it was a tough challenge post bubble  
14 bursting in the 2000 time frame on.

15 Q. I want to focus your attention on Java. And could you  
16 explain what you think of as Java.

17 A. Java is a -- more of a descriptor because there are many  
18 things Java. There's the Java language. There's the Java  
19 specifications. The Java implementations.

20 And the technology that embraces all of that ran from  
21 smart card to supercomputers and even a Mars landing vehicle.  
22 So it was a broad set of technologies. But it depends on, you  
23 know, what you're talking about; the language, or the  
24 specifications, or the implementations.

25 Q. Now, let me ask you to focus on another term that we've

1 heard in this trial, which is "APIs." Are you familiar with  
2 that term?

3 **A.** Application programming interfaces, yes.

4 **Q.** Now, you talked about the Java language, the Java  
5 specifications, and the Java implementations. Where in those  
6 categories, if any, does the Java APIs fall?

7 **A.** Well, there's no perfect analogy, but the one I like to  
8 use to help explain it is that the Java language is sort of  
9 like English. Or more in a construction analogy, might be  
10 considered the nuts and bolts and two-by-fours and the pipes.  
11 The APIs are more like the architect's drawings. And the  
12 implementations are the house or the structure, the sky  
13 scraper, whatever end up being built using those components to  
14 that API architecture.

15 **Q.** Now, as far as Sun was concerned, was Sun's Java  
16 intellectual property a valuable asset for Sun?

17 **A.** Yes. Extremely valuable.

18 **Q.** And where was that value, for the most part?

19 **A.** Well, the value was in the brand, being at the end of the  
20 parade, if you will, of the Java technology, which was, along  
21 with the Netscape browser, kind of what created the Internet  
22 and the momentum around there.

23 So we actually lived by "we are the dot in dot-com,"  
24 after we launched Java and merged that with the Netscape  
25 browser technology.

1 But there was also lots of intellectual property, a  
2 lot of R&D in that. We certainly had a lot of implementations  
3 that ran Sun smart cards, phones, computers, servers and  
4 other -- other devices that we sold for -- for revenue.

5 **THE COURT:** May I make a request? The word  
6 "implementation" is being used here, and we've heard that term  
7 a lot in the trial. So let me, can I ask a question?

8 **MR. BOIES:** Absolutely, Your Honor.

9 **THE COURT:** When you just used the word, a lot of  
10 implementations that ran on smart phones, computers, do you  
11 mean applications, end user applications?

12 **THE WITNESS:** I mean actual code. An end-user  
13 application wouldn't necessarily run -- an operating system  
14 embedded in something isn't necessarily an end-user  
15 application; although, you do use it.

16 It's just the actual physical code, the 0s and 1s and  
17 binary and source code that creates an application or a runtime  
18 environment, or whatever. So it's the stuff the engineers  
19 write.

20 **THE COURT:** Well, when you say "API," we've heard  
21 testimony that there's this -- kind of an outline, but that the  
22 code that actually implements a particular function in an API,  
23 that's been called an implementation.

24 **THE WITNESS:** Yes.

25 **THE COURT:** But it's not a final application of any

1 type, it's just something that could find a co-sign of  
2 something. You understand what I'm saying?

3 **THE WITNESS:** Right.

4 **THE COURT:** So be aware, as you testify, that we have  
5 a lot of -- we've heard that word "implementation" a lot, and  
6 it would help us all to be clear, if you can, more  
7 specifically, what you mean by it when you use -- use one of  
8 these words we've heard so much about.

9 **THE WITNESS:** I would say "implementation" is  
10 probably more of a product, actual product, something that you  
11 could download to your phone or your PC or something.

12 **THE COURT:** That's the way you're using it?

13 **THE WITNESS:** Yes.

14 **THE COURT:** All right. Thank you.

15 Go ahead, Mr. Boies.

16 **MR. BOIES:** Thank you.

17 **BY MR. BOIES:**

18 **Q.** Now, Sun does not charge anybody for using the Java  
19 programming language; is that correct?

20 **A.** That's correct -- as I understand it, yes, I don't believe  
21 anybody ever paid us for the language.

22 **Q.** Now, what about the Java API specifications, does Sun  
23 license those?

24 **A.** Uhm, yes. We -- we did. And they were kind of  
25 architectural drawings within -- within -- for a product.

1 Q. I'd like to hand up some exhibits that I may ask you  
2 about.

3 MR. BOIES: May I approach, Your Honor?

4 THE COURT: Sure.

5 BY MR. BOIES:

6 Q. And I'd like to begin, to sort of follow up the Court's  
7 question, by looking at Exhibit 610.1, which is in evidence.

8 A. Is that Exhibit 16?

9 Q. No. It's 610.1.

10 A. Oh, here it is. I see it.

11 (Document displayed.)

12 Q. Empty. I apologize. Let me see if I can --

13 THE COURT: Well, you have my permission to use the  
14 screen, if that would --

15 MR. BOIES: Could I --

16 THE WITNESS: Yeah.

17 THE COURT: Here we go.

18 (Document displayed.)

19 BY MR. BOIES:

20 Q. Can you explain to the jury what this is.

21 A. It looks like a -- a license to have access to use the  
22 Java 2 Standard Edition development specification.

23 Q. And if you go to the second paragraph, the third line, you  
24 will see a reference to what is referred to there as an  
25 independent implementation of the specification.

1 Do you see that?

2 **A.** Right.

3 **Q.** And can you explain what is meant there by those two  
4 different terms, "specification" and "independent  
5 implementation."

6 **A.** So, again, using the building analogy, what this license  
7 would allow you to use is the architectural drawings. But then  
8 you could build your own house, but using these drawings, and  
9 use your own folks to engineer and build your own house.

10 But the specifications are what's licensed here, not  
11 the actual product or implementation as I was using in a  
12 previous word.

13 **Q.** Now, when you were at Sun, did you understand that in  
14 order to use the Java API specifications you needed to have a  
15 license?

16 **A.** Yes.

17 **Q.** And this describes some of the conditions of that license.  
18 And I want to ask you about some of them.

19 The first one says --

20 **MR. VAN NEST:** Objection. Lacks foundation, Your  
21 Honor. No evidence this witness knows anything about these  
22 licenses.

23 **THE COURT:** Do you know anything about these  
24 licenses?

25 **THE WITNESS:** I know -- not sure this one in

1 particular, but I know a lot about licensing because we were an  
2 intellectual property company. We did a couple billion dollars  
3 a year in R&D. And we licensed the product out in every  
4 product that we shipped.

5 Everything we shipped was under contract with  
6 licenses. So I spent a lot of my time going through licenses,  
7 yes.

8 I'm not quite sure specifically with respect to a  
9 sentence in here, but I can certainly explain what the  
10 intentions were for Sun around any particular license.

11 **THE COURT:** Well, I'll let you ask some questions.  
12 And if we start getting off into areas where it's pretty clear  
13 he doesn't know, then I may have to intervene. But the last  
14 witness we had gave equivalent testimony on direct examination  
15 by Google, so I'm going to let you have sort of the same  
16 leeway.

17 **MR. BOIES:** Thank you, Your Honor.

18 **THE COURT:** The objection is overruled, at least to  
19 that extent.

20 **BY MR. BOIES:**

21 **Q.** With respect to the licenses by which Sun made its Java  
22 API specifications available to be implemented, were there, as  
23 you understood it, restrictions in those licenses as to what  
24 the person receiving the license had to do?

25 **MR. VAN NEST:** Objection, Your Honor. Vague as to



1 time.

2 **BY MR. BOIES:**

3 **Q.** While you were chairman of Sun.

4 **A.** So there were licenses for every product and service that  
5 we sold, yes. And those licenses all had restrictions and  
6 limitations.

7 **Q.** Now, let me focus particularly on licenses for  
8 implementing the Java API specifications. Can you give me some  
9 examples of some of the restrictions that those licenses  
10 imposed on the licensee.

11 **A.** Well, the most important one, with respect to Java, was  
12 that you maintain compatibility, because that was probably one  
13 of the most important value propositions that we offered, was  
14 the fact that developers could write to a platform and know  
15 that it ran on implementations or products built to that  
16 specification from different -- from different vendors or  
17 suppliers. So that was -- that was -- that was a strong  
18 requirement.

19 Typically, security compatibility was also important  
20 so that there weren't viruses or security bugs that would cause  
21 problems for developers or users.

22 **Q.** Was there ever a time, when you were chairman of Sun, when  
23 it was Sun's policy or practice to permit someone to  
24 incompatibly implement API specifications, so long as they did  
25 not call it Java?

1 A. Uhm, our API licenses were all about compatibility for  
2 Java. So in the Java space I -- I don't recall that that was  
3 ever a -- a strategy that we pursued nor allowed in the  
4 marketplace.

5 Q. Now, we've heard something about TCKs. Is that a term  
6 that you're familiar with?

7 A. Yeah. Technology -- Technology Compatibility Kit.

8 Q. And does that have any role to play in connection with  
9 maintaining compatibility?

10 A. Typically, we would require people who licensed products  
11 or specifications to pass the TCK, which was a set of tests to  
12 ensure compatibility across the different product  
13 implementations to a particular specification.

14 Q. Now, there's also been some testimony about positive  
15 comments that people at Sun made about Android in and about  
16 2007. And there's been some testimony about a blog from  
17 Mr. Schwartz.

18 Did you happen to read that blog back in November of  
19 2007?

20 A. Uhm, if you won't tell him, no, I didn't, really. I was  
21 busy. I didn't read it, no. Not typically.

22 I might have read an occasional entry, but I don't  
23 recall any specific one about Android.

24 Q. Did that blog or anybody's blog, no matter what their  
25 position was, represent a formal or official statement of Sun

1 policy?

2 **A.** Uhm, I -- I don't believe -- no. And I believe there was  
3 actually a policy that made sure that everybody knew that the  
4 blogs were not corporate, but, rather, personal statements.

5 **Q.** Were you personally involved at all in dealing with Google  
6 with respect to possible deals between Google and Sun in the  
7 2006-2007 time frame?

8 **A.** I'm sure I was. You know, I don't recall the exact  
9 exchanges, but as CEO and then eventually chairman, I'm sure I  
10 was involved in the discussions at different points.

11 **Q.** Let me show you some documents and see if that refreshes  
12 your recollection.

13 First, let me show you Trial Exhibit 205, which I  
14 believe is up there, which I think is in evidence.

15 (Document displayed.)

16 **BY MR. BOIES:**

17 **Q.** This is an e-mail from you to Eric Schmidt, which responds  
18 to an e-mail that Mr. Schmidt had sent you.

19 Do you see that?

20 **A.** Yes, I do.

21 **Q.** And your e-mail is dated February 8, 2006; is that  
22 correct?

23 **A.** Yes.

24 **Q.** And you say:

25 "Thanks for the note. Jonathan and the team

1           are on top of this - I'm worried about how  
2           we're going to replace the revenue this is  
3           likely going to submarine."

4           Do you see that?

5   **A.**    I do.

6   **Q.**    And can you explain what was meant by "submarine" here.

7   **A.**    Well, what this -- my recollection of this is that Google  
8   wanted a relationship that would fundamentally eliminate the --  
9   or severely minimize the revenue stream that we were getting  
10   from the Java ME environment with the relationship that I just  
11   couldn't see how it was economically valuable or responsible  
12   for our shareholders to go do.

13           So I was asking him to explain to me how -- how does  
14   this work to our advantage, not just to your advantage?

15   **Q.**    If Sun had given a license to Google to implement a  
16   noncompatible or incompatible version of the Java API  
17   specifications, would that have had an effect, an adverse  
18   effect on Sun's economics?

19           **MR. VAN NEST:**  Objection, Your Honor.  Hypothetical.  
20   This is not expert.

21           **THE COURT:**  That's true.  But you can rephrase the  
22   question in terms of how he felt about it at the time, if he,  
23   in fact, had considered that point.  But to ask that question  
24   now is just calling for an opinion and argument.  So,  
25   sustained.

1 BY MR. BOIES:

2 Q. In the time that you were chairman of Sun, did you  
3 consider the extent to which, if any, allowing Google to have  
4 an incompatible implementation of the Java APIs would adversely  
5 affect Sun's economics?

6 A. It was a very clear corporate strategy that the Java  
7 platform should stay compatible, because the biggest advantage  
8 to any platform, whether it be the Apple platform or the IBM  
9 platform, was to have a common platform for software developers  
10 to write to.

11 And most of the engineering that happens, for  
12 instance, on the Apple platform is not inside of Apple; it's  
13 the independent software developers who write applications to  
14 that.

15 If you have incompatible implementations, then the  
16 engineers spend more time re-porting or rewriting to different  
17 platforms than they do creating new technology.

18 So all platform vendors try to ensure compatibility  
19 across their product lines so that the application vendors are  
20 building new functionality, not re-reporting the old  
21 functionality to different platforms.

22 So there is a huge economic value to preventing what  
23 we call forking, where somebody takes a current platform --  
24 some of you may remember a long time ago when the PC came out,  
25 there was PC-compatible machines, and then there were

1 99-percent-compatible machines. And they went out of business  
2 because the software developers wouldn't write to those  
3 platforms.

4 That's what we wanted to prevent, was  
5 99-percent-compatible environments, or somebody forking it and  
6 getting in front of our economic stream of value, called  
7 royalty payments, by taking over our developer community with a  
8 forked version.

9 So that's why we pushed compatibility so hard in the  
10 licensing model.

11 I mean, you can say I'm not an expert, but, in my  
12 view and in the corporation's view, allowing forking was a  
13 negative economic strategy.

14 Q. Let me ask you to look, next, at Trial Exhibit 16, which I  
15 believe is not in evidence.

16 MR. BOIES: And I would offer that exhibit at this  
17 time.

18 THE COURT: 16?

19 MR. BOIES: Yes.

20 THE COURT: Any objection?

21 MR. VAN NEST: No foundation, Your Honor.

22 MR. BOIES: I will ask the witness.

23 BY MR. BOIES:

24 Q. On the first page of this, sir, is there an e-mail from  
25 you to Eric Schmidt of Google?

1 A. I see it.

2 Q. Yes, sir.

3 A. What was the question? I'm sorry.

4 Q. Is there a -- on the first page, the bottom half of the  
5 first page --

6 A. Right.

7 Q. -- an e-mail from you to Eric Schmidt of Google?

8 A. That -- that -- yes. Yes, it is.

9 Q. And at this time you were the CEO of Sun, and he was the  
10 CEO of Google, correct?

11 A. I believe the time frame is accurate, yes.

12 MR. BOIES: Your Honor, I would re-offer the  
13 document.

14 MR. VAN NEST: No objection, Your Honor.

15 THE COURT: 16 is received.

16 (Trial Exhibit 16 received in evidence.)

17 BY MR. BOIES:

18 Q. Now, let me ask you to look at this e-mail, which is also  
19 from February of 2006. And you say that:

20 "In talking about a possible deal, the  
21 financials of this deal will be crucial for  
22 Sun to ensure success."

23 Do you see that?

24 A. No.

25 Q. It's on the very first page.

1 A. First page.

2 Q. Last paragraph.

3 A. Yes, the financials -- okay. I do see that.

4 Q. What did you mean by that?

5 A. We -- we had a very lucrative revenue stream from J2ME,  
6 which was the handset version of Java, that we had licensed to  
7 just about every smart phone carrier, except Apple, around the  
8 world.

9 So it was -- it was a very strong revenue stream for  
10 us. It was royalties which have no cost to goods sold, so it  
11 was fundamentally nearly pure profit, that revenue stream. So  
12 it was quite valuable.

13 Q. Let me ask you to look next at Trial Exhibit 563, which we  
14 believe is in evidence, but I want to check with counsel.

15 MR. VAN NEST: Yes, it is.

16 THE WITNESS: Can I use the screen? It's empty.

17 THE COURT: Sure, you can use the screen.

18 (Document tendered to the witness.)

19 BY MR. BOIES:

20 Q. This is an e-mail from you to Mr. Schwartz, and then a  
21 response from Mr. Schwartz to you. Correct?

22 A. Yes, it is.

23 Q. And you wrote this in or about March of 2007; is that  
24 correct?

25 A. That's correct.



1 Q. And what was your purpose in writing this?

2 A. One was to say I needed a little secretarial help, and,  
3 then, the other was a comment on the Google -- the Google  
4 situation.

5 Q. Did Mr. Schwartz, at any time when you were chairman of  
6 Sun, ever tell you that he disagreed with anything that you  
7 said to him in this e-mail?

8 A. Not that I recall.

9 Q. Let me ask you to look next at Trial Exhibit 565. Do you  
10 have that up there?

11 A. I do.

12 MR. BOIES: Now, this document is not in evidence.  
13 And we're going to, Your Honor, offer this in our rebuttal case  
14 through another witness. But I simply want to ask the --

15 MR. VAN NEST: This is in evidence, Your Honor.

16 MR. BOIES: It is in evidence?

17 MR. VAN NEST: Yes.

18 MR. BOIES: Come in this morning?

19 MR. VAN NEST: I believe so.

20 MR. BOIES: I'm sorry. I'm behind the times.

21 Since it is in evidence, we can display it in front  
22 of the jury.

23 (Document displayed.)

24 BY MR. BOIES:

25 Q. And I direct your attention to the second page, at the

1 bottom, where there's an e-mail from Vineet Gupta. Do you see  
2 that?

3 **A.** Yes.

4 **Q.** And he has two points that he makes. Do you see that?

5 **A.** Yes.

6 **MR. VAN NEST:** Objection, Your Honor. There is no  
7 foundation the witness has ever seen this before. It's not to  
8 him or from him. Just displaying the exhibit for the jury.

9 **MR. BOIES:** That is true, Your Honor. I haven't yet  
10 got to the question that would be a substantive question.

11 **THE COURT:** Well, it's in evidence. Possibly there's  
12 something that the witness can give direct factual testimony  
13 on, so go ahead. Overruled so far.

14 **BY MR. BOIES:**

15 **Q.** My question, sir, is whether you agree with some of the  
16 things that Mr. Gupta has said. And in particular, I want to  
17 focus you on paragraph 2. Do you see that?

18 **A.** Where it's labeled 2, yes.

19 **Q.** And it says:

20 "If Google is still using Java in it a) then  
21 they have to come for a license with us - and  
22 will need to be compatible."

23 Do you see that?

24 **A.** I do see that.

25 **Q.** And is that a point that you would agree with?

1           **MR. VAN NEST:** Objection. Foundation. The fact that  
2 he agrees or disagrees today is irrelevant.

3           **THE COURT:** Sustained.

4           This is just a form of argument, Mr. Boies. You're  
5 free to ask a fresh question without leading the witness by  
6 showing him a document and saying, Do you agree with that?

7           No. We don't -- he's not on this document. This is  
8 somebody else wrote it. It's not to this witness, not from  
9 him. You're free to ask him independent questions that would  
10 get at the same point, but not to do it the way you're doing  
11 it.

12 **BY MR. BOIES:**

13 **Q.** Let's set the document aside.

14           Did you believe, at the time that you were chairman  
15 of Sun, that if Google was still using Java in its Android  
16 operating system then it would have to go to Sun for a license,  
17 and would have to be compatible?

18           **MR. VAN NEST:** Same objection, Your Honor. There is  
19 no evidence he even considered this or --

20           **THE COURT:** Well, that's what we're trying to find  
21 out. That's a legitimate question.

22           Putting aside that document, ignore that document and  
23 think back in your own memory to those days. And if you had  
24 that thought in mind back then, you may answer "yes."  
25 Otherwise, the answer is either "no" or "I don't remember."

1           **THE WITNESS:** Yes.

2           **BY MR. BOIES:**

3           **Q.** And why?

4           **A.** Well, we had several ongoing conversations with Google in  
5 this approximate time frame, including a patent conversation  
6 around potential patent infringements.

7                       We had a conversation around licensing Java  
8 technology for their phone project that they were working on.  
9 And we also were talking to them -- I don't remember exactly  
10 the time, but we were also talking to them about putting the  
11 Google Toolbar in the Java download that we offered to the  
12 Microsoft platform.

13                      So those were all three very large and  
14 semi-intertwined conversations.

15           **Q.** Now, we talked about the specification license. There was  
16 also a GPL license under which a company, Google or anyone  
17 else, could obtain access to Sun's Java API specifications;  
18 correct?

19           **A.** I believe so.

20           **Q.** And do you know what restrictions, if any, were imposed on  
21 people who got Sun's intellectual property under a GPL license?

22                      **MR. VAN NEST:** Objection. Lacks foundation, Your  
23 Honor.

24                      **THE COURT:** That's the question. Do you actually  
25 know the answer to that?

1           **THE WITNESS:** I do, in general terms, know the answer  
2 to that.

3           **THE COURT:** All right. Then I'll let you answer in  
4 general terms. But the jury will -- you know, this is a  
5 general answer and not a specific, precise answer. And  
6 sometimes judges won't allow this. But both sides have done it  
7 so I'm going to let this witness answer this kind of question.

8           All right. Objection overruled. Go ahead,  
9 Mr. Boies.

10           **THE WITNESS:** So a GPL license -- and there are  
11 multiple forms of GPL licenses, as I understand it -- requires  
12 people who use GPL code to reshare, at no -- no cost,  
13 technology that's built on top of or inside of or around or  
14 adjacent to the GPL code that they have licensed.

15           So it's a commitment to reshare any innovation that  
16 you put on top of or around or within the code that you have  
17 licensed under a GPL license.

18 **BY MR. BOIES:**

19 **Q.** And do you know, from your own personal knowledge, whether  
20 or not Sun made available the API specifications under a GPL  
21 license during the time that you were chairman of --

22 **A.** I don't recall specifically, but we would have made those,  
23 most likely, under a situation of sharing with no commercial  
24 arrangements.

25           In other words, you can't license GPL code and then

1 resell it for a profit.

2 **MR. VAN NEST:** Objection. Move to strike, Your  
3 Honor. He said he didn't know specifically.

4 **THE COURT:** Sustained. That's not a good enough  
5 memory. So that last answer will not be allowed. It's  
6 stricken.

7 **BY MR. BOIES:**

8 **Q.** Do you know, of your own personal knowledge, companies  
9 that did take licenses from Sun to implement Sun's API  
10 specifications?

11 **MR. VAN NEST:** Objection. It's irrelevant.

12 **THE COURT:** Overruled. If you know of your own  
13 personal knowledge, you may answer.

14 **THE WITNESS:** Uhm, as I mentioned earlier, I believe  
15 just about every handset manufacturer had licensed Java  
16 technology under license from us, and resold it. So those  
17 would be companies like Motorola and Nokia and others.

18 **MR. BOIES:** I have no more questions, Your Honor.

19 **THE COURT:** Thank you. Cross-examination.

20 **CROSS EXAMINATION**

21 **BY MR. BOIES:**

22 **Q.** Good morning, Mr. McNealy.

23 **A.** Good morning.

24 **Q.** You are a good personal friend of Mr. Larry Ellison; are  
25 you not?

1 A. I'm acquaintances, and I have done social events with him,  
2 yes.

3 Q. And when Mr. Ellison's company, Oracle, bought Sun, you  
4 made a great deal of money. Right?

5 A. I cashed out. I think the money was made before.

6 Q. How much did you cash out when Oracle purchased Sun?

7 A. Uhm, I don't recall the exact number, but it was probably  
8 a couple-hundred-million dollars, I'm guessing, of stock value.  
9 Maybe 150-, 200 million. I can't remember exactly.

10 Q. And since that time you have referred to Mr. Ellison in  
11 public discussion as a national economic hero, right?

12 A. That's correct.

13 Q. Okay.

14 A. Anybody who pays that many taxes is a national economic  
15 hero.

16 (Laughter)

17 Q. And you proposed last year, in such a talk, that the  
18 Norman Mineta Airport should be renamed the Larry Ellison  
19 International Airport. Right?

20 A. I believe all public facilities paid for by taxpayers  
21 should be named after taxpayers, not politicians.

22 Q. But didn't you specifically stand up at a conference last  
23 year, Mr. McNealy, and say to the group: The Norman Mineta  
24 Airport should no longer be the Norman Mineta Airport. It  
25 should be the Larry Ellison International Airport.

1 Right?

2 A. I believe so, because he's probably the largest taxpayer  
3 in this geography.

4 Q. Now, do you remember standing on the stage with Mr.  
5 Ellison at the first JavaOne after Oracle had acquired Sun?

6 A. I don't recall specifically. I had been on stage with him  
7 quite a few times.

8 Q. Do you remember Mr. Ellison standing up right next to you  
9 and saying:

10 "We are flattered by Android's use of Java"?

11 A. I don't recall that, no.

12 Q. You don't recall that.

13 Now, you are a big, big fan of open source, correct?

14 A. I am.

15 Q. And you have said repeatedly at conferences like the one  
16 we just talked about that you're a firm believer that open is  
17 good, right?

18 A. I don't know that -- you know, open vaults are good, but,  
19 yes, "open" as a word is not a bad word.

20 Q. And you said:

21 "The written and spoken language we all use  
22 should be open and shared."

23 Right?

24 A. Yeah, that's correct.

25 Q. And you were talking there about Java, right?



1 A. Java language.

2 Q. Right, right, the Java language.

3 And then you said:

4 "Interfaces should all be published and  
5 open."

6 Right?

7 A. They should be. I'm not quite sure what you meant by  
8 that. Say that again one more time.

9 Q. Well, you said:

10 "Nobody should own and control the alphabet,  
11 grammar, syntax."

12 Right, Mr. McNealy?

13 A. That's correct. That's correct. I've said that.

14 Q. And then you said:

15 "Interfaces should all be published and  
16 open."

17 Correct?

18 A. Yes.

19 Q. You said that.

20 And then you went on to say:

21 "Nobody should own the fact that the break  
22 pedal is to the left of the accelerator  
23 pedal, especially when you're in a car."

24 Right?

25 A. That's correct.

1 Q. And you were referring to an API there, right?

2 A. I'm referring to where the brake pedal goes.

3 Q. Right. And you were analogizing an API to a break pedal,  
4 right?

5 A. I didn't say that was a software API. I said that  
6 interfaces should be open. I didn't say they should be  
7 freely -- freely licensed.

8 Q. And the -- no, no. You said they should be published and  
9 open, right? That's what you said?

10 A. Published doesn't mean freely licensed.

11 MR. VAN NEST: Your Honor, I would like to play the  
12 actual video. We have a video from this, and I'd like to play  
13 it now as impeachment. It's a statement that Mr. McNealy made  
14 at a conference in San Francisco last year.

15 THE COURT: Let me ask: Were you at a conference in  
16 San Francisco last year?

17 THE WITNESS: I might have been. I don't recall.

18 THE COURT: Do you think you might have made a  
19 statement then along the lines of what counsel is saying?

20 THE WITNESS: I have been a very open advocate of  
21 open systems and so, sure.

22 MR. BOIES: Your Honor, my notes indicate this was  
23 not disclosed. Can I ask counsel whether this was disclosed?

24 MR. VAN NEST: It was not. It's impeachment.

25 THE COURT: Well, it would qualify as impeachment if

1 it contradicts what the witness says.

2 Counsel, is that correct?

3 **MR. VAN NEST:** That's right.

4 **THE COURT:** Is it going to contradict?

5 **MR. VAN NEST:** That's right.

6 **THE COURT:** Well, I'll take his word for it and we'll  
7 play it for the jury. If it turns out not to contradict him,  
8 then I will strike it from the record.

9 All right. Go ahead. Let's play it.

10 **MR. VAN NEST:** Can we play the second video.

11 **THE COURT:** What is the exhibit number we're playing?  
12 (Videotape played in open court;  
13 not reported.)

14 **THE COURT:** All right. The record will be allowed to  
15 stand. It's for the jury to decide whether or not that's  
16 impeaching, but it's arguably impeaching. So, therefore, that  
17 will stay in the record.

18 **BY MR. VAN NEST:**

19 **Q.** Now, Mr. McNealy, when you said, "Interfaces should all be  
20 published and open," you're referring to Application  
21 Programming Interfaces?

22 **A.** Right. I'm referring to anything that would advance  
23 inter-operability for our products.

24 **Q.** And that's what an application programming interface does,  
25 right?

1 A. It may or may not, but my view is that it is -- and if  
2 you've heard me speak very clearly --

3 Q. Excuse me, Mr. McNealy. Excuse me.

4 A. Sorry.

5 Q. An Application Programming Interface, the whole point of  
6 it is for inter-operability, correct?

7 A. Not necessarily. It may be for an application or for  
8 cross platform or it could be an internal interface. It is not  
9 necessarily just for public applications.

10 Q. Now, you've also stated in publications and press  
11 statements that:

12 "We don't make money from Java the language."

13 Right?

14 A. That's correct.

15 Q. That means Sun?

16 A. We don't generate revenue, direct revenue. We don't  
17 charge for it.

18 Q. All right. And:

19 "We make money doing things with and that  
20 support the language just the same as a  
21 writer makes money writing in English, but  
22 not by owning English."

23 Right?

24 A. That's correct.

25 Q. So you never owned the Java Programming language; that's

1 the point of your comment?

2 **A.** No, it isn't.

3 **Q.** Now, you mentioned blueprints. Have you -- was there ever  
4 a time when Sun took a public position with respect to  
5 blueprints?

6 **A.** I'm not quite sure I understand that question.

7 **Q.** Was there ever a time when Sun took a public position  
8 concerning APIs and blueprints?

9 **MR. BOIES:** Your Honor, can we have a time frame?

10 **BY MR. VAN NEST:**

11 **Q.** Any time when you were chairman or CEO of Sun.

12 **A.** When we took a position around APIs?

13 **Q.** Yes.

14 **THE COURT:** We're not going to back to that thing  
15 that I've ruled off limits, are we?

16 **MR. VAN NEST:** I'm trying to find out -- he spoke  
17 about blueprints again, your Honor, and I'm trying to find  
18 out --

19 **THE COURT:** We're not going to -- I made a ruling on  
20 that. That's ancient history. We're not going to get into  
21 that.

22 **BY MR. VAN NEST:**

23 **Q.** Now, Mr. McNealy, while you were -- I take it in 2006 Mr.  
24 Schwartz became the chief executive officer?

25 **A.** He did.

1 Q. And he was running the company at that point?

2 A. He was CEO.

3 Q. He had responsibility as CEO for directing the business  
4 affairs of the company?

5 A. He did.

6 Q. And he had authority to enter into licenses or not to do  
7 so as he chose, right?

8 A. He had certain signature authority policies and  
9 restrictions that the Board of Directors had.

10 Q. And you were fully aware that he had a blog out there,  
11 right?

12 A. I knew he had a blog.

13 Q. And he blogged on it weekly, monthly, all the time, right?

14 A. I have no idea how many times he did it. I never read it.

15 Q. You never did anything to close it down, that's for sure.

16 A. I didn't, no.

17 Q. And as chairman -- as CEO he had -- he had the right to do  
18 that, didn't he?

19 A. Yeah, I suppose.

20 Q. And he did, right?

21 A. He blogged.

22 Q. And you never complained, right?

23 A. I didn't.

24 MR. VAN NEST: I have nothing further, your Honor.

25 THE COURT: Mr. Boies?

**REDIRECT EXAMINATION**

**BY MR. BOIES:**

**Q.** Just one subject.

With respect to that video that was played, you talked about interfaces being open and published; do you recall that?

Did that have anything to do in your mind with whether interfaces or Application Programming Interfaces should have to be licensed?

**A.** No. "Open" does not mean throw it over the wall in a public domain rights equivalent to ownership perspective.

We offered lots of our technology for free. We offered it in terms of no revenue charge, but it was almost -- and in every case that I know of it was accompanied by a license and that license had certain conditions and restrictions.

Rights equivalent to ownership is giving somebody the ability to take that technology and do whatever they wanted without ever having to check with us or without ever having anybody to legally review what we're doing with that. And we did not license our technology with rights equivalent to ownership, even if it was free and open. "Open" doesn't mean throw it over the transom and it's rights equivalent to ownership.

So I think -- that's a big difference. When you use

1 the word "open," it's a very overbroad word from that  
2 perspective.

3 **MR. BOIES:** No more questions, your Honor.

4 **THE COURT:** All right.

5 **MR. VAN NEST:** I have nothing further, your Honor.

6 **THE COURT:** All right. Mr. McNealy, thank you for  
7 coming and you're excused. Have a good day. Please leave  
8 behind the documents that belong to us.

9 **THE WITNESS:** Thank you.

10 (Witness excused.)

11 **THE COURT:** All right. Now, we will return to  
12 Google's defense case. And your next witness, please.

13 **MR. BABER:** Your Honor, Google calls Professor Owner  
14 Astrachan.

15 **THE COURT:** Okay. Let's wait and let the public  
16 seating area settle down a little bit.

17 (Brief pause.)

18 **THE COURT:** If anyone is going to get up and down,  
19 this is a good time to do it so that we can have all of the  
20 attention on the lawyers and the witness without distraction.

21 Mr. Baber, are you ready to go? It looks like you're  
22 still setting up.

23 **MR. BABER:** I'm ready to go your Honor.  
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**OWEN ASTRACHAN,**

called as a witness for the Defendant herein, having been first  
duly sworn, was examined and testified as follows:

**THE WITNESS:** I do.  
**THE CLERK:** Okay. Thank you.

**THE COURT:** All right. Welcome. You have been here,  
right? So you need to -- you know how it works. Speak clearly  
into the microscope.

What's your name?  
**THE WITNESS:** Owen Astrachan.  
**THE COURT:** Perfect.

Go ahead, counsel.

**DIRECT EXAMINATION**

**BY MR. BABER:**

**Q.** Good morning Mr. Astrachan.  
**A.** Good morning.  
**Q.** Where do you live?  
**A.** I live in Chapel Hill, North Carolina.  
**Q.** How old are you?  
**A.** I'm 56.  
**Q.** Where did you grow up?  
**A.** I grew up in and around New York.  
**Q.** New York City?  
**A.** Born in New York City, grew up in the suburbs.  
**Q.** Where did you go to high school?

1 A. Went to Yorktown High School, Yorktown Heights, New York.

2 Q. Did you go to college?

3 A. I did. I went to Dartmouth College.

4 Q. Did you get a degree from Dartmouth?

5 A. I received a degree with a distinction in mathematics.

6 Q. What year was that?

7 A. 1978.

8 Q. After that, did you receive any other?

9 A. I received a Master's of Arts in teaching, a Master of  
10 Science in computer science, and a --

11 Q. Wait, wait. Let's take one at a time.

12 A. Okay.

13 Q. What was the first school you went to after you got your  
14 degree at Dartmouth?

15 A. I went to Duke.

16 Q. And did you get a degree from Duke?

17 A. I did, in 1979.

18 Q. And what was that degree?

19 A. That was a Master of Arts in teaching mathematics.

20 Q. And did you get any other degrees after that?

21 A. I did.

22 Q. And what was the next degree that you got?

23 A. 1989, I think I've got the date right, I got a Master of  
24 Science in computer science also from Duke.

25 Q. So that's a second Master's degree?

1 A. That's correct.

2 Q. Okay. Did you get any other degrees after that?

3 A. I received a PhD in computer science from Duke in 1992.

4 Q. In order to get that PhD degree, did you have to write a  
5 big paper of some kind called a dissertation?

6 A. I did. I wrote a dissertation.

7 Q. Just very quick, just tell us what was the general subject  
8 matter of your doctoral dissertation?

9 A. The general subject matter was High Performance Theorum  
10 Proving.

11 Q. Okay. And was that a computer science topic, a math  
12 topic? What was that?

13 A. It was a computer science topic, kind of in the area of  
14 artificial intelligence at that time.

15 Q. And that was back in the early 1990's?

16 A. That's correct.

17 Q. What do you do for a living?

18 A. I'm a professor of computer science at Duke.

19 Q. You're a teacher?

20 A. I am. I teach many courses.

21 Q. And that's Duke University?

22 A. Duke University, correct.

23 Q. Where is Duke located?

24 A. Duke is located in Durham, North Carolina.

25 Q. How long have you worked at Duke?

1 A. 23-plus years.

2 Q. Do you have a position or title at Duke?

3 A. I am professor of the practice of computer science and the  
4 director of undergraduate studies in computer science at Duke.

5 Q. What does that mean to say "professor of the practice of  
6 computer science"?

7 A. My research and my career are built around teaching in  
8 pedagogical concerns. Actually practicing computer science,  
9 not just thinking about it, but doing both.

10 Q. And if we can try -- you just used the word "pedagogical"?

11 A. I did.

12 Q. What does pedagogical mean?

13 A. Pedagogical is the process of teaching and educating both  
14 the students that take our courses and then professors at other  
15 universities so they know how to do that as well.

16 Q. So is your job -- in your job as a teacher, you have both  
17 expertise in the computer science field, but also separate  
18 expertise in how to teach computer science; is that right?

19 A. That's correct. I have expertise in both.

20 Q. Okay. And how long have you had the position you have now  
21 at Duke?

22 A. I began that position in 1993.

23 Q. So almost 20 years?

24 A. Yes.

25 Q. Okay. And just give the jury some idea of day-to-day in

1 your job, how do you spend your time? What do you do?

2 **A.** I spend much of my time teaching and getting ready to  
3 teach, developing materials for my courses, developing  
4 materials that I will publish for other people to use at other  
5 universities that they will be able to teach.

6 I'm also running a very large grant that occupies  
7 some of my time as well.

8 **Q.** Now, if you have both a PhD and you're a professor, do you  
9 have a preference whether I call you Dr. Astrachan or Professor  
10 Astrachan?

11 **A.** I prefer Professor, but I go with Doctor, also. That's  
12 fine.

13 **Q.** And what kinds of courses do you teach?

14 **A.** I teach many courses. I've taught the Introduction to  
15 Computer Science course for many earliest. I teach a course in  
16 Data Structures and Algorithms that I have taught many times.  
17 I have taught courses in Programming Languages, in Advanced  
18 Software Design. I teach a course called Technical and Social  
19 Foundations of the Internet.

20 **Q.** Okay. And when you say you teach, who are your students?  
21 Who do you teach to?

22 **A.** I teach Duke undergraduates primarily. Occasionally  
23 graduate students, but mostly undergrads.

24 **Q.** Would that include, for example, a college freshman, just  
25 out of high school?

1 A. Yes, absolutely.

2 Q. Have you taught high school students?

3 A. In the past I have. I was a high school teacher before I  
4 went back to graduate school.

5 Q. And have you written any publications in the field of  
6 either computer science or teaching computer science?

7 A. I have. I have written several papers. I've written a  
8 textbook on C++. I have written papers that describe how to  
9 use both C++ and Java in teaching courses.

10 Q. And let's just back up a second and make sure. What is  
11 C++?

12 A. C++ is a programming language. I think some people have  
13 talked about it here in court. It's similar to Java.

14 Q. And we've heard references here at the trial to C, C++,  
15 and C#. Are those -- do those languages have anything to do  
16 with each other, other than the fact that they all have "C" in  
17 the name?

18 A. They do have something to do with each other. C is the  
19 first of those languages, and then C++ and C# were essentially  
20 built afterward to be somewhat compatible and to add features  
21 and be used in different ways.

22 Q. And are those three languages viewed as different  
23 languages, C, C++ and C#?

24 A. Yes. Those are different languages.

25 Q. Okay. Now, have you also written a textbook that has

1 something to do with tapestries?

2 **A.** The title of my C++ textbook was Computer Science  
3 Tapestry, exploring computer science and programming with C++.

4 **Q.** In that textbook that you wrote, is there any discussion  
5 of APIs?

6 **A.** There is some discussion about APIs, yes.

7 **Q.** Okay. Let me --

8 **MR. BABER:** May I approach, your Honor?

9 **THE COURT:** Yes.

10 **BY MR. BABER:**

11 **Q.** Professor Astrachan, I'm going hand you what's been marked  
12 as Exhibit 2524 and ask you if you recognize that.

13 (Whereupon, document was tendered  
14 to the witness.)

15 **A.** That is a copy of my curriculum vitae.

16 **Q.** What is a curriculum vitae?

17 **A.** It kind of outlines all my contributions to the community;  
18 my degrees, my titles, publications, the consulting I've done,  
19 courses I've taught.

20 **MR. BABER:** Your Honor, we would offer the exhibit in  
21 evidence.

22 **MR. JACOBS:** No objection, your Honor.

23 **THE COURT:** Received.

24 (Trial Exhibit 2524 received  
25 in evidence)

1 BY MR. BABER:

2 Q. Professor Astrachan, have you received any awards for your  
3 teaching?

4 A. I have received several awards. I've received two awards  
5 from Duke for teaching.

6 I received an award when I was teaching on sabbatical  
7 at the University of British Columbia.

8 Q. What does that mean, "teaching on sabbatical"?

9 A. Professors and educators sometimes get to go someplace  
10 else for a half year or a year to learn new things and be in  
11 new places. And I was at the University of British Columbia on  
12 sabbatical between '98 and '99, and I taught a course when I  
13 was there and, apparently, I did it very well.

14 Q. And other than or in addition to the awards you've won at  
15 Duke and the award you got at British Columbia, have you  
16 received any other awards?

17 A. I have. In 2007 I was named one of two distinguished  
18 computer science educators by the National Science Foundation.

19 Q. And what was the universe of that? You were one of two  
20 award winners out of what pool or what group?

21 A. Out of essentially all computer scientists that were  
22 interested in the process of education in the country.

23 Q. And is your work at Duke supported by any grants?

24 A. My work at Duke is supported by grants. Currently I have  
25 two grants from the National Science Foundation, and in the



1 past I have had a grant from IBM and Microsoft. I don't have  
2 those any more.

3 Q. So you have grants from both companies as well as other  
4 types of entities?

5 A. Yes, that's correct.

6 Q. Now, we already talked about your specialty of the field  
7 of teaching computer science.

8 In connection with that, have you been involved in  
9 the development of any educational materials that could be used  
10 to teach computer science?

11 A. I have. In addition to my textbook, I have worked with  
12 the College Board on the advanced placement computer science  
13 course for several years.

14 Q. Okay. And is the College Board, those are the folks that  
15 give the SAT tests and the other standardized tests around the  
16 country?

17 A. Yes. College Board develops and administers SATs, APs and  
18 many other tests, that's correct.

19 Q. What's an AP test?

20 A. AP is an advanced placement test. Some high school  
21 students take that in high school. If they do well, they can  
22 get credit for college courses.

23 Q. Was there a specific AP course or text, subject that you  
24 worked on?

25 A. Yes. I have been involved with the Advanced Placement

1 computer science test since it was first given in 1984.

2 Q. And, in particular, what did you do in connection with the  
3 development of the AP test?

4 A. At first I was on the committee that made up the test.  
5 Then I was in charge of grading the test. And I also was the  
6 chairman of the committee that oversaw the process of moving  
7 from both Pascal to C++ and then from C++ to Java.

8 Q. When you say moving from one language to another, what do  
9 you mean exactly?

10 A. The language that the test is given in has changed over  
11 time because of several considerations. It first was in  
12 Pascal, which was the predominant language used in teaching.  
13 And then C++ became more used in teaching, and now Java is more  
14 widely used, so the language that's used is Java.

15 Q. Has your work in connection with the College Board and AP  
16 exam in computer science involved any APIs in any way?

17 A. It has, yes.

18 Q. And what involvement have you had with APIs in that  
19 context?

20 A. When the exam moved to Java, we wanted to use a small  
21 number of the APIs, not all of them, in an educational setting.  
22 So we made what we call the AP subset of the Java APIs.

23 Q. And that's something you did? That wasn't commercial,  
24 just for educational purposes?

25 A. That was for educational purposes, that's correct.

1 Q. Were you personally involved in the process of creating  
2 that subset of the APIs?

3 A. Yes. As I said, I was the chair of the committee that did  
4 it and I also maintained the website that had the subset of the  
5 APIs on it.

6 Q. Professor Astrachan, are you familiar with programming  
7 languages generally?

8 A. Yes, I am.

9 Q. And how have you become familiar with programming  
10 languages?

11 A. I have written programs for many, many years. I have  
12 taught courses that use programming languages. I have taught a  
13 course that is about programming languages.

14 So as part of my kind of career as a computer  
15 scientist, one of the many things I'm interested in is  
16 programming and programming languages.

17 Q. Can you give us a sense, Professor, of how many computer  
18 programming languages you know or speak? I don't know what you  
19 call it in your profession?

20 A. Well, I might use the phrase speaking, but we don't speak  
21 them. We write them on a computer.

22 And the number of languages I've known over the years  
23 is many. I use mostly C++, Java and Python today. I have  
24 written programs in C and C# and ML and Pascal and Basic. I's  
25 could name some more.

1 Q. And some of those languages that you just mentioned,  
2 Pascal and Basic, how far back in time do those go? How old  
3 are those languages?

4 A. Those languages are old. From the 70's and 60's.

5 Q. Do you recall what was the first computer programming  
6 language you learned?

7 A. I first learned Basic in 1973.

8 Q. And do you speak Java?

9 A. I speak Java. Yes, I do.

10 Q. When did you first learn Java?

11 A. I first learned Java in 1996 roughly. It might have been  
12 '95; '95, '96 that time frame.

13 Q. And have you learned other languages since you learned  
14 Java?

15 A. I have. I have learned Python. Recently I have spent a  
16 lot of time learning and programming in Python.

17 Q. And how did you learn Java?

18 A. I learned Java by reading books about Java, by looking at  
19 websites that discuss Java. And mostly I learned it by writing  
20 Java programs and watching them work or not work and figuring  
21 that out.

22 Q. Okay. And when you learned the Java language, did you  
23 feel it was similar or dissimilar from languages you were  
24 already familiar with?

25 A. I thought Java was similar to C++ in many ways and much

1 better language for beginners and for people that didn't want  
2 their programs to crash.

3 Q. And have you taught courses specifically in the Java  
4 language?

5 A. I have taught many courses that use Java, yes.

6 Q. And when you taught those -- have you taught introductory  
7 courses in the Java language?

8 A. I have taught introductory courses.

9 Q. Have you ever said anything about APIs in any of your  
10 introductory level courses in the Java language?

11 A. We discuss with all our students that we want to write  
12 programs that actually do something. And when programs do  
13 something, they need to use APIs.

14 So we absolutely talk about APIs so that our programs  
15 can do something interesting and useful.

16 Q. And are there any sort of standard reference materials  
17 relating to the Java programming language that you're familiar  
18 with?

19 A. There are. There are books on the Java programming  
20 language. We've seen some of those in court, is my  
21 understanding.

22 Q. We've seen a book in court called the *Java Programming*  
23 *Language Specification*. You're familiar with that?

24 A. Yes, I am.

25 MR. BABER: May I approach, your Honor?

1 BY MR. BABER:

2 Q. Putting before you, Professor Astrachan, two documents.  
3 One is Trial Exhibit 980. It's a book entitled the Java  
4 *Application Program Interface, Volume 1, Core Packages.*

5 And Trial Exhibit 981, the *Java Application*  
6 *Programming Interface, Volume 2, Window, Toolkit and Applets.*

7 (Whereupon, document was tendered  
8 to the witness.)

9 Q. Let me ask you, Professor, are you familiar with those two  
10 books?

11 A. Am I familiar with these two books.

12 Q. Yes.

13 A. Yes, they are on my shelf.

14 Q. Do you use them frequently?

15 A. I have used them frequently. I use them less frequently  
16 because I know some of the stuff in them now, but I have used  
17 them.

18 Q. Okay. In addition to the *Java Language Specification* book  
19 and the two API books that are in front of you, are there any  
20 other articles or papers that you consider to be good reference  
21 works regarding the Java language?

22 A. There's a great book by Dr. Bloch that's called *Effective*  
23 *Java* that's been very useful to me in programming in Java.

24 Q. Now, in your teaching of the Java language or other  
25 programming languages, do you teach your students how to create

1 APIs?

2 **A.** In my advanced course in software design, we do teach our  
3 students to create APIs, yes.

4 **Q.** And in your courses, do you teach of students how to -- as  
5 a programmer, as someone who is writing an application, do you  
6 teach them how to use an API?

7 **A.** Yes. We concentrate on using APIs well before we  
8 concentrate on writing them, absolutely.

9 **Q.** Why is that?

10 **A.** It's much easier to be a client of an API, to use the APIs  
11 and the programs you write. You can do that in a simple way.  
12 It's harder to create an API and after you have gained  
13 experience, it's easier to do it.

14 **Q.** Do you ever give your students assignments on how to use  
15 APIs?

16 **A.** Yes, we do. Right from the very beginning of our courses  
17 the students are given assignments where they have to use APIs.

18 **MR. BABER:** Your Honor, we offer Professor Astrachan  
19 as an expert in the fields of computer science, programming  
20 languages, the teaching of computer science, the Java  
21 programming language and Application Programming Interfaces.

22 **MR. JACOBS:** No objection, your Honor.

23 **THE COURT:** Okay. So as long as we stay within the  
24 area of his specialized knowledge, we'll be fine.

25 Proceed.

1           **MR. BABER:** Thank you, your Honor.

2           **BY MR. BABER:**

3           **Q.** Professor, prior to your engagement in connection with  
4 this matter, had you had any prior involvement with Google?

5           **A.** Yes, I had some involvement with Google, yes.

6           **Q.** What involvement had you had with Google before this  
7 lawsuit?

8           **A.** I agreed in about 2006 to help Google develop educational  
9 materials for their internal meet with software engineers that  
10 were being hired at Google.

11           **Q.** So you were helping Google teach Google engineers how do  
12 use something?

13           **A.** That's correct.

14           **Q.** What were you helping them teach the engineers to use?

15           **A.** Google was hiring lots of engineers, especially engineers  
16 that did not have experience in Java, but had experience in C++  
17 and they wanted someone with expertise in both languages that  
18 could explain teaching, to teach their engineers.

19           **Q.** In addition to that project, have you attended any  
20 programs for people in the computer field at Google?

21           **A.** Google hosts many conferences and meetings for computer  
22 scientists and I have been to several of those, that's correct.

23           **Q.** Now, when you did your project for Google creating  
24 educational materials, did Google pay you for that?

25           **A.** Google paid for me as a contractor for that. I worked for



1 them for about three months on that project.

2 Q. You were not a Google employee?

3 A. I was not a Google employee, that's correct.

4 Q. And you mentioned earlier that your work as a professor is  
5 sometimes supported by grants from companies, is that correct?

6 A. Yes. Yes, it is.

7 Q. Have you ever had a grant from Google?

8 A. I have not had a grant from Google.

9 Q. Did you apply for a grant from Google?

10 A. I did apply for a grant from Google just as this case was  
11 beginning and once my involvement in the case was set, I  
12 withdrew that grant.

13 Q. Now, Professor, I want to start by addressing some  
14 possible confusion that's come up in the Court -- in the trial  
15 about terminology.

16 You have been here for the entire trial so far?

17 A. I have.

18 Q. And have you heard questions come up about what is an API?

19 A. I have heard that question many times.

20 Q. And whether or not a package is an API?

21 A. Yes.

22 Q. Okay. First of all, you understand that there are 37 of  
23 something in this lawsuit that's at issue and have been getting  
24 a lot of attention, right?

25 A. Yes.

1 Q. Technically what are those 37 things called?

2 A. Those are 37 packages.

3 Q. Okay. Is that the -- as far as you know, is that the only  
4 accurate way to refer to the things of which there are 37 units  
5 at issue in this lawsuit?

6 A. That is my favorite way of referring to them, 37 packages.

7 Q. And is it technically accurate to call them packages?

8 A. Absolutely. The Java language specification talks about  
9 packages and they are packages.

10 Q. But if either a business person or an engineer referred to  
11 those as 37 APIs, would you know what they were talking about?

12 A. I would if I had been in court for this time, but  
13 otherwise I might not be so familiar with if you said, "I had  
14 37 APIs."

15 THE COURT: API package, what would you think that  
16 means.

17 THE WITNESS: Well, I know what that means because we  
18 have been in court for two weeks. But I think that that  
19 phraseology of API packages is not one that's typically  
20 employed. Packages, yes. An API, yes.

21 THE COURT: All right. Go ahead.

22 This is -- we should stick with this. It would be  
23 interesting to hear the witness's view of what all these terms  
24 mean.

25 MR. BABER: That's exactly where we're going, your

1 Honor.

2 **THE COURT:** Go ahead.

3 **BY MR. BABER:**

4 **Q.** So, let's back up. We talked about things that are in  
5 issue, these 37 things. Those are packages, correct?

6 **A.** Correct.

7 **Q.** Now, do you hear reference sometimes to just the API?

8 **A.** Yes. You off hear "the API."

9 **Q.** And is that phrase used to mean lots of different things  
10 to lot of different people at different times?

11 **A.** Yes, that would be accurate.

12 **Q.** Now, I want to start big. What is the biggest unit of  
13 things that you think of that you would properly refer to as  
14 "the API"?

15 **A.** I think the thing that would make most sense here is to  
16 say that all of the Java SDK has an API. That would be refer  
17 to all of the packages that programmers use.

18 **Q.** So in Java Platform Version 5.0, which we have heard has  
19 166 packages, all 166 together could be accurately referred to  
20 as the API; is that --

21 **A.** Yes, I think that would be reasonably common.

22 **MR. BABER:** May I approach, your Honor?

23 **BY MR. BABER:**

24 **Q.** And, in fact, Professor the books that discuss several of  
25 the packages, what do they call the thing that's the subject of

1 the book?

2 **A.** The Java Application Programming Interface core packages.

3 **Q.** That's just the Java API singular, right?

4 **A.** That is correct.

5 **Q.** Not "interfaces," just "the API"?

6 **A.** The API. The Java API.

7 **Q.** All right. And just give the Court and the jury an idea  
8 of -- what would be a context in which you think it would be  
9 very appropriate to refer to all of the classes and packages  
10 together as "the Java API"?

11 **A.** I think if you were trying to explain to someone that you  
12 knew Java, they would say, "You know the Java API?" And you  
13 would understand them to mean that you had written programs  
14 using many of these packages, that you were conversant with  
15 much of the Java API.

16 **Q.** All right. And if you had some sort of a computer system  
17 that your students were working on, and they were learning  
18 multiple languages at a time, and in one part of the computer  
19 they had libraries that would work as they were learning the  
20 Java language, and another part of the computer they had  
21 libraries that would work with the Python language, and in a  
22 third area there would be API implementations for C++.

23 Would that be a context in which you would call the  
24 Java ones as a group the Java API, the Python ones as a group,  
25 the Python API, and the C++ ones as a group the C++ API?

1 A. Yes. Absolutely that would be such a context and we use  
2 that terminology often.

3 Q. Now, moving down one level to the packages, which we  
4 talked about earlier, the thing that there's 37 of that are at  
5 issue. Do people sometimes refer to individual packages as  
6 APIs? The java.lang API, for example.

7 A. Yes. They would absolutely say the java.lang API and that  
8 would be well understood.

9 Q. It may be well understood, but as a technical matter would  
10 it be accurate?

11 A. "API" is a term that we can use and it's not really  
12 technically accurate or not. It's just fine.

13 Q. Okay. But when someone says as to you -- when they  
14 specifically give you have a package name, for example, and say  
15 "the java.lang API," you know what they are talking about?

16 A. Yes. They are talking about the java.lang package and how  
17 to use it.

18 Q. Okay. Now let's go down one more level to the class  
19 level. Pick a class within java.lang.

20 A. I choose String.

21 Q. String, all right. Now if somebody says to you -- makes a  
22 reference to the java.lang.string API, would you know what they  
23 were talking about?

24 A. I would. I would assume they were talking about the  
25 String class in the package java.lang, and how it's generally

1 used.

2 Q. And technically, is that -- in the computer science  
3 technical sense is that reference to the java.lang.math API an  
4 accurate use of the phrase API?

5 A. Yeah. You said Math and I said String, but yeah. It's  
6 not perfectly accurate, but it's well understood.

7 Q. Okay. And now going down finally to the last level.  
8 What's inside classes?

9 A. Methods and fields are inside classes. We have heard  
10 about both of those.

11 Q. And give me an example of an individual method?

12 A. In the String class an individual method would be length.  
13 In the Math class we have heard about square root.

14 Q. We will just do one --

15 A. String length.

16 Q. Do them one at a time.

17 So if someone talks to you about -- makes a reference  
18 to the java.lang.Math.squareroot API, would you know what they  
19 were talking about?

20 A. I would. They would be talking about one method named  
21 square root in the Math class, in the lang package in the Java  
22 library.

23 Q. That may not technically be the right way to refer to it  
24 as an API. What should you call it, as a technical matter, if  
25 all you want to be talking about is one specific item, the

1 square --

2 **A.** I would call it the square root method.

3 **Q.** Okay. Now, there also may be some confusion about when  
4 references to the phrase "API," exactly what that's referring  
5 to.

6 Are you familiar with different parts of an API or  
7 aspects of an API that can be referred to just calling it an  
8 API?

9 **A.** Yes. There are many parts to an API, and we've seen some  
10 pictures of those.

11 **Q.** Okay. So can an API -- can the term "API" be used and is  
12 it used by people in the computer field sometimes to refer to  
13 the specification for either a class or an individual method?

14 **A.** People do use that term. They say "the API," meaning the  
15 specification of it.

16 **Q.** Okay. Is the phrase "API" also sometimes used to refer  
17 specifically to the implementing code in the library that gets  
18 the job done when you call -- when you use that API to call on  
19 the code?

20 **A.** I would say that is uncommon, that people would talk about  
21 implementing the API and not call that the API.

22 **Q.** Okay. And is it common to refer to -- to use the phrase  
23 "API" sometimes to refer to something that's abstract, some  
24 idea or concept?

25 **MR. JACOBS:** Objection, your Honor. Leading.

1           **THE COURT:** To the extent, if at all.

2           **BY MR. BABER:**

3           **Q.** Is it common or uncommon --

4           **THE COURT:** No. To what extent, if at all.

5           **BY MR. BABER:**

6           **Q.** To what extent, if at all, is it appropriate to use the  
7 phrase "API" to refer to something that's abstract?

8           **A.** I have used often. Abstraction is defining an API as  
9 helping you understand it. It's appeared in many written  
10 documents and articles; that an API is an abstraction that  
11 helps programmers understand how to write programs.

12           **Q.** Okay. And, Professor, in my questions I'm going to try  
13 and be as precise as I can when I use the phrase "API." And  
14 will you try and be as precise in your answers as you can be to  
15 distinguish between a method or a package or a class or  
16 something else?

17           **A.** I will do my best to help us all understand these terms.

18           **Q.** Okay. What does API stand for?

19           **A.** API stand for Application Programming Interface.

20           **Q.** And what is an interface?

21           **A.** An interface is something that comes between things. So,  
22 helping two things interact and communicate or function  
23 together.

24           **Q.** Okay. And can there be interfaces with respect to  
25 hardware, a computer monitor and a printer, et cetera?



1 A. Yes. There are interfaces that help two pieces of  
2 hardware talk to each other, absolutely.

3 Q. Can there be interfaces between two computer programs or  
4 two pieces of software?

5 A. Yes. At many levels, software communities by interfacing  
6 with other software in your computer.

7 Q. Now, can you use an everyday example for the jury. Think  
8 about a home computer. You have a home computer with a PC  
9 connected to a monitor, a printer, and let's say a modem or a  
10 cable to get on the internet.

11 Are any interfaces involved with how those parts  
12 communicate with each other?

13 A. Yes. There are many, many interfaces in that scenario.

14 Q. Okay. Can you just give us a couple of examples of where  
15 there would be interfaces?

16 A. You have to have something plugging your computer into a  
17 modem, whether it be a cable modem or not. And that cable is  
18 an interface that helps your computer connect to the internet.

19 Your computer is also likely connected to a printer,  
20 and that connection is an interface. So that when you go to  
21 the store and bring home a new printer, hopefully, it just  
22 works. You plug it in and that plugging it in is part of a  
23 standard interface between computers and printers.

24 Q. So an interface can be something physical, two parts or  
25 two things that connect with each other?

1 A. Yes, it can.

2 Q. Okay. And if instead of a cable or modem, you use  
3 wireless internet, so your computer somehow gets on the  
4 internet through the air, are there interfaces involved in  
5 that?

6 A. There are interfaces between your computer and a wireless  
7 router. There are interfaces that help the software, that are  
8 pieces of both of those, communicate with each other.

9 Q. Okay. And when you talked about the hardware, the printer  
10 and the monitor, you have to have them physically connected.  
11 Do they also employ any software interfaces when they  
12 communicate with each other?

13 A. Yes. Typically the computer would have a device driver,  
14 for example, that would be software that helps the computer  
15 talk to the printer.

16 Q. Now, in -- for products that come from different companies  
17 to be able to work with each other through interfaces, are  
18 there any particular requirements for the interface?

19 A. These days interfaces are reasonably standard so that when  
20 you buy a printer, it usually comes with a little icon that  
21 says it will connect to your Apple computer or your Linux  
22 computer or your Windows computer. So there are standards that  
23 help devices connect to each other.

24 Q. And when you have standards like that for an interface,  
25 are there any restrictions on how an individual company can

1 comply with the standard if it wants to use the interface  
2 that's being defined?

3 **A.** I'm not conversant with hardware standards, but my  
4 understanding is that there are standards and whether companies  
5 have to pay to use those standards or not, I just don't know.

6 **Q.** Okay. Let's move to software. You're familiar in the  
7 software context?

8 **A.** Yes.

9 **Q.** Okay. And I want to direct your attention. You're  
10 familiar with the schematic of the Android platform? It's a  
11 copy of --

12 **MR. BABER:** Well, let me back up, your Honor, and ask  
13 the witness whether it would be helpful to him to have copies  
14 of his expert report on the stand, like Professor Mitchell did?

15 **THE COURT:** That would be fine.

16 While you're digging that out, can I ask a question  
17 on your definitions?

18 **MR. BABER:** Absolutely.

19 **THE COURT:** Let's say you have a method called square  
20 root.

21 **THE WITNESS:** Yes, sir.

22 **THE COURT:** And you write the lines of code. You  
23 come up with a way to figure out how to find the square root of  
24 a number.

25 **THE WITNESS:** Okay.

1           **THE COURT:** You know, I don't know. Say it's 10  
2 lines of code, I'm not sure.

3           Do you call that the implementation? What is that  
4 called?

5           **THE WITNESS:** That would absolutely be the  
6 implementation of the square root method. Those 10 lines of  
7 code would be the implementation.

8           **THE COURT:** Implementation.

9           **THE WITNESS:** Implementation of the square root  
10 method.

11          **THE COURT:** And then you referred to specification a  
12 moment ago, what precisely is a specification?

13          **THE WITNESS:** A specification is something that helps  
14 the user of the API make -- be able to use it in a program and  
15 make a call.

16          So if I'm going to call the square root function, I  
17 have to know how do I call it? What code do I write to get the  
18 square root of a number? And that specification would, at one  
19 level, tell me, as a programmer, how do I get a square root of  
20 a number? What do I need to do?

21          **THE COURT:** Is that the same thing as the  
22 declaration, or the same thing as the name, or is that yet a  
23 third item?

24          **THE WITNESS:** The declaration is usually constrained  
25 to be simply the method signature, the return type. We've

1 heard about that. We saw some examples in the parameters.

2           The specification might include documentation that  
3 gives you some more information about it. Like, for example,  
4 what would happen if you tried to take the square root of a  
5 negative number. For those people that remember, you can't  
6 actually take the square root of a negative number. So when  
7 you try to do that, what happens? And the specification would  
8 say what happens in your program if you try to do that.

9           **THE COURT:** So when you say "specification," you're  
10 talking about the plain -- not plain, but the English language  
11 text.

12           **THE WITNESS:** I'm talking about both the text that  
13 describes how to use it and that -- what we call the  
14 declaration, which I think is a reasonable term. All that  
15 would be part of the specification.

16           **THE COURT:** So in it's narrowest, most technical,  
17 boiled down to -- could a specification simply be one line of  
18 symbols?

19           **THE WITNESS:** It could be. That would be an overly  
20 terse specification in the sense of if it was just that line,  
21 I wouldn't know what would happen when things went wrong or  
22 right. It would just be, I can make -- I can call it. I can  
23 use it, but when I do, I might not know what happens if there  
24 is no other English words that describe it.

25           **THE COURT:** All right.

1           **THE WITNESS:** But I would be able to use it.

2           **THE COURT:** All right. Would this be a  
3 specification? Put in a positive number, get back square root?

4           **THE WITNESS:** Yes. That would be a good  
5 specification.

6           **THE COURT:** All right. And is that what you would  
7 think the specification for the square root thing, method would  
8 say? Maybe more than that, but that would be the essence of  
9 it.

10           **THE WITNESS:** That would be the essence. I would  
11 expect it to have a little more, but that would be the essence  
12 of it, yes.

13           **THE COURT:** Specification, implementation. You have  
14 used this word signature. We've heard that now and then. What  
15 does that mean?

16           **THE WITNESS:** I think we have heard the term  
17 declaration and signature and used them reasonably  
18 synonymously. It includes the method's name, and that includes  
19 the full qualified name. I think we'll see more of that later.  
20 The return type. So for square root you get back a number.  
21 And the parameters that you need.

22           So, for example, you can't take the square root of a  
23 word like hippopotamus. I need to give it a number and you get  
24 back a number. And all those pieces -- what you give it, what  
25 its name is, and what you get back, all of those are parts of

1 the methods declaration or signature. I believe we're going to  
2 see, once again, the famous Math.max function.

3 **THE COURT:** You know, I'm going to make a suggestion,  
4 because we have 15 minutes -- and you can use all of it, if you  
5 want. But if we are going to still be able to finish tomorrow,  
6 it might be able to start fresh -- in other words, find a  
7 breaking point, pause for today, and then start at a fresh  
8 point tomorrow. Because he's going to, obviously, be here  
9 tomorrow.

10 Right?

11 **MR. BABER:** Yes, your Honor.

12 **THE COURT:** So you have some flexibility there. But  
13 you have my permission to end a little early if it would allow  
14 us to start on a fresh new point tomorrow.

15 **MR. BABER:** We can go a little bit longer and I think  
16 that might get us to a real good breaking point, your Honor.

17 **THE COURT:** Let's do it.

18 **MR. BABER:** May I approach?

19 **BY MR. BABER:**

20 **Q.** Dr. Astrachan, I'm going to put in front of you four  
21 exhibits. One is Exhibit 2523. Second is Exhibit 2529. Third  
22 is Exhibit 2532. And the last one is Exhibit 3523.

23 (Whereupon, documents were tendered  
24 to the witness.)

25 **Q.** And just ask you quickly if you can identify those?

1 **A.** Yes. These are the various reports that I've written in  
2 conjunction with my role in this case.

3 **Q.** And does each one of those four have your signature on  
4 it?

5 **A.** Do you want me to check the last page?

6 Yes, I believe that one does. And I signed that one.  
7 And ditto. And I'm going to take your word on this one. There  
8 are too many appendices, but it looks like yes.

9 **Q.** Okay.

10 **MR. BABER:** Actually, your Honor, this is probably as  
11 good a time to break as any. We'll just complete Dr. Astrachan  
12 in the morning.

13 **THE COURT:** Okay. We'll still be able to finish  
14 tomorrow?

15 **MR. BABER:** We certainly will, your Honor.  
16 Absolutely. That's no problem.

17 **MR. VAN NEST:** Yes, your Honor.

18 **THE COURT:** All right. Let's break at this point for  
19 today. And we -- today is Thursday. Tomorrow is Friday. And  
20 the lawyers are telling me that they expect to finish all of  
21 the evidence by tomorrow. So, and that means we're on track.  
22 You know, something could happen. We may go over til Monday,  
23 but I believe we're doing good. These lawyers are superb  
24 lawyers. They are working hard to streamline this, and so  
25 there we are.



1 See you tomorrow at the normal time. Thank you.

2 **THE CLERK:** All rise.

3 (Jury exits courtroom at 12:45 p.m.)

4 **THE COURT:** Be seated everyone.

5 **MR. BABER:** Your Honor, can Professor Astrachan step  
6 down?

7 **THE COURT:** Yes, he can, and we'll pick it up  
8 tomorrow.

9 (Witness steps down.)

10 **THE COURT:** Let's do this. I have some items for  
11 you. Do you have those draft instructions?

12 Here is what we're going to do. He's going to get  
13 two copies for you. They are drafts. And, also, the special  
14 verdict form, and we'll come back. I've got a few things I  
15 want to go over on that.

16 So let's say 10 minutes we'll resume. I don't think  
17 we'll need to stay long, but about 10 minutes. All right?

18 **MR. VAN NEST:** We'll come back in 10 minutes?

19 **THE COURT:** I will give you a 10-minute break and  
20 then we'll resume. Thanks.

21 (Whereupon there was a recess in the proceedings  
22 from 12:45 p.m. until 12:59 p.m.)

23 **THE COURT:** All right. Back to work. Please be  
24 seated.

25 My law clerk and I need about another hour. We'll

1 just have to post it. But here is what I would like for you to  
2 do. We'll have our charging conference on this at 12:15  
3 tomorrow -- I mean, 2:15.

4 But if you could submit by late tonight your three  
5 areas of biggest heartburn, then I can be thinking about that.  
6 The small things we can deal with in short order, but the big  
7 things I would like to know, if you have any big items, that  
8 you disagree with. And so maybe if you could submit that  
9 tonight.

10 So I had another thought on the instructions. Oh,  
11 one of the things that I'm trying to do is come up with a  
12 definition that covers the compilable code, the name and the  
13 declaration, but not the English language comments.

14 We think the proper term for that is class library.  
15 Agreed? I just want a term that I can use with the jury that  
16 both sides think is accurate and will convey to the jury the  
17 compilable code part. That includes the declaration and the  
18 name, but also the implementation.

19 **MR. JACOBS:** I think we earlier had clarified for  
20 your Honor that the class library is the compiled code part,  
21 rather than the compilable code. So we started sorting out our  
22 terminology to use that properly.

23 **THE COURT:** Well, then, what would you call what I  
24 just described?

25 **MR. JACOBS:** I have to think about that, your Honor,

1 and see if there is a term.

2           **MR. KWUN:** Your Honor, I don't know if there is a  
3 term of art for that. I think it would be something like "the  
4 source code for the library without the comments." So you just  
5 have to -- and if you want to give it a name, you could, but I  
6 don't know that there's a term of art for that.

7           **MR. VAN NEST:** We'll get to work on it.

8           **THE COURT:** Here is why I bring it up. Because if  
9 you read all of these *Law Review* articles in the decision so  
10 far, the English language part of these, you know, line-by-line  
11 thing, that's not what they're talking about when you get into  
12 Structure, Sequence and Organization.

13           The argument for computer programs and whether or not  
14 it goes beyond the literal language is over the Structure,  
15 Sequence and Organization of the code that gets compiled, or  
16 maybe the object code after it's compiled.

17           With respect to the English language comments, there  
18 is no such thing as Structure, Sequence and Organization. That  
19 is a -- it's like apples and oranges. Those two don't go  
20 together.

21           So I'm trying to find a way to put to the jury the  
22 Structure, Sequence and Organization argument that is accurate,  
23 but subtracts out the English language part, which the computer  
24 doesn't read.

25           In other words, we've got the part the computer

1 reads. We've got the part that a human that speaks English can  
2 read. And then there's nothing else. And the declarations and  
3 the names, I think, go with both. Right? Right?

4 The Extractor takes the names out. The Extractor  
5 takes out the declaration. The Extractor takes out all of the  
6 English language comments, but it doesn't take out the actual  
7 implementing code. Meanwhile, the computer reads the name.  
8 Reads the declaration. Reads the implementing code.

9 So what I'm trying to do is break the thing that got  
10 copyrighted, which is that disc, into its -- the component  
11 parts that have the SSO. And the rest of it is in plain  
12 English and that does not get the benefit of any SSO and it has  
13 to be analyzed in a different way, which is just side-by-side.  
14 And we have to have to make a determination whether it's  
15 entitled end versus broad comparison and what the work as a  
16 whole is for the English language part.

17 So at least that's the way I'm approaching this, and  
18 you can -- if that's one of your heartburn issues when you see  
19 the way I'm approaching it, which I tried to lay out there in  
20 the verdict form for you, then I want you to comment. I'm open  
21 to hearing your suggestion for a better way to do it.

22 But my initial question to you is: What is the part  
23 that gets compiled and read by the computer -- maybe to be  
24 precise: What is the part that gets compiled? What is that  
25 part called? If I called it a code, would that work? The

1 compilable code, would that part work? That's a term that no  
2 one has actually been using, but I could use it, I guess.

3 **MR. JACOBS:** That's --

4 **THE COURT:** So you all -- some of you objected to --  
5 when I put in "compilable code" in the verdict form, you  
6 scratched it out and said "package." But "package" doesn't get  
7 me where I need to be because it mushes the tests together.

8 **MR. VAN NEST:** We get it.

9 **MR. JACOBS:** We'll work on it.

10 **MR. VAN NEST:** We'll work on it, your Honor. I  
11 understand.

12 **THE COURT:** All right. But you're telling me "class  
13 libraries" is not right. Both of you reject that.

14 **MR. VAN NEST:** I want to reserve on that. Maybe that  
15 will work. It might. We'll have to see. We'll  
16 meet-and-confer.

17 I understand what you're trying to do. You're trying  
18 to extract the English language descriptions out of there and  
19 what's left? The declaration, the code.

20 **THE COURT:** Right. Well -- correct. The English  
21 language comments get stripped out and what is everything else  
22 that's left, which I believe the computer is able to read and  
23 understand. That is what -- the universe I'm trying to define  
24 for the jury.

25 So, all right. So maybe in about -- it may be more

1 like two hours because I've got civil calendars all afternoon  
2 long, so I'm going to have to -- by the end of the business day  
3 you will have the draft instructions and a new round on the  
4 special verdict form.

5 **MR. VAN NEST:** And, your Honor, you said on the  
6 heartburn points tonight. Does that mean -- is midnight okay,  
7 or are you going to be waiting for these?

8 **THE COURT:** After about 7:30 I will not be waiting.

9 **MR. VAN NEST:** So does that mean --

10 **THE COURT:** Midnight is fine. All I wanted to know  
11 is when I -- I will be here early, though. Early in the  
12 morning I will be reading your briefs and I'd like to know what  
13 the big issues were.

14 **MR. VAN NEST:** Okay.

15 **THE COURT:** And you can leave the side issues to one  
16 side without prejudice to bringing them up later. So, like I  
17 say, your three biggest issues. I would think just five or six  
18 pages per side would be plenty to give me a heads-up.

19 **MR. VAN NEST:** Okay. We'll do that.

20 **THE COURT:** Now, somebody had given me, I think --  
21 did I say I overruled all the objection also on these  
22 depositions?

23 **MR. VAN NEST:** Yes, you did.

24 **THE COURT:** Well, here it is back. I do overrule  
25 those objections.

1           **MR. NORTON:** You said on the Agarwal deposition?  
2 This is the Gupta deposition, which you had not seen until --

3           **THE COURT:** Wait a minute.

4           **MR. NORTON:** I actually don't know that your Honor --  
5 I would be happy to have you overrule them all, but...

6           (Laughter.)

7           **MR. VAN NEST:** Agarwal is the one you gave us back  
8 this morning, your Honor.

9           **THE COURT:** Oh, okay. I haven't read this one at  
10 all. I thought it was the same one. Sorry. Thank you for  
11 clarifying it.

12           Is this your last witness?

13           **MR. VAN NEST:** Yes.

14           **THE COURT:** All right. So we've probably got another  
15 hour and a half, possibly two hours with him. And then where  
16 do we stand with the rebuttal case?

17           **MR. JACOBS:** We have a rebuttal case. We will  
18 communicate the order of our witnesses to Google by 3:00  
19 o'clock.

20           **THE COURT:** All right. Here is the minutes. 944  
21 minutes used by plaintiff. And then I've got to add... 900  
22 minutes used by defense.

23           **MR. VAN NEST:** 900?

24           **THE COURT:** 900. So the gap is closing.

25           **MR. VAN NEST:** Your Honor, I was wondering whether

1 we -- with the JMOLs that we filed, you deemed those filed at  
2 the end of the plaintiff's case.

3 **THE COURT:** I did.

4 **MR. VAN NEST:** Would it be possible for us to --  
5 since we're filing findings on Tuesday, assume we close the  
6 evidence tomorrow, could we deem the JMOLs filed, you know,  
7 before the evidence -- before the case is submitted to the jury  
8 and then just file the JMOLs on Tuesday along with the findings  
9 that your Honor has ordered, or would you prefer to get  
10 something -- I'm trying to give the staff a little extra time.  
11 We can file them Sunday night, too, if you think that's better,  
12 but...

13 **THE COURT:** Well, I've got to think about that.

14 **MR. VAN NEST:** It has to be deemed or -- we'll take a  
15 look at the rules, but, obviously, they have to be made before  
16 the case is submitted to the jury. We could probably make them  
17 by just standing up orally and filing a brief.

18 **THE COURT:** Why don't you do this? When the case  
19 goes to the jury, or moments before, do a thin skeletal outline  
20 of the points you want to make and then you can have until  
21 Tuesday to flesh it out with more --

22 **MR. VAN NEST:** That's fine. Do you want that thin  
23 skeletal outline orally or do you want it in writing?

24 **THE COURT:** I think it ought to be in writing. And  
25 both sides are entitled to make a Rule 50 motion, so it works



1 both ways.

2           **MR. VAN NEST:** That's good. We will do that. Thank  
3 you.

4           **MR. JACOBS:** And when do you want -- or do you want a  
5 written response to that?

6           **THE COURT:** Yes.

7           **MR. JACOBS:** When do you want that?

8           **THE COURT:** I'm not going to rule on it... I would  
9 say maybe by -- you tell me. You've got a lot going on. I  
10 don't want to -- when can you do it?

11           Looking back at the team and they are all hiding.

12           **MR. JACOBS:** I made so many commitments for them.

13           **THE COURT:** How about Saturday?

14           **MR. JACOBS:** That would be terrific, your Honor.

15           **THE COURT:** At 3:00 p.m.

16           **MR. JACOBS:** Perfect.

17           **THE COURT:** In these instructions you're going to see  
18 that there are three places where I'm asking you to  
19 meet-and-confer and to give me a paragraph to put in. One is  
20 on ownership. One is on subjective objective. And I've  
21 forgotten what the other is. Objective, subjective -- I know  
22 that it's there in that *Apple* decision, and I've read the *Apple*  
23 decision a couple of times, and I am just not sure how it  
24 applies in our case.

25           It would be fine with me if you two agreed just to

1 dispense with it, but I don't want to be criticized for not  
2 having put in the objective/subjective test. So you two do  
3 your best to figure out a way to address that.

4 **MR. VAN NEST:** We'll do that, your Honor.

5 **THE COURT:** All right.

6 **MR. VAN NEST:** Thank you.

7 **THE COURT:** And then -- I just think this thing about  
8 ownership, you've got to make up your mind whether you're going  
9 to reopen and put in more evidence, but I think this is a  
10 serious proposition. But if I -- I do see one clear way to  
11 avoid the problem, I think, and this is what I want you to...

12 And that is to drop question two. Only go on the  
13 global, the group of the 37, and not go with the individual  
14 structure of the APIs and do that on three theories.

15 One. There is no evidence to support the 37 because  
16 nobody testified to the intricacies, but I could be proven  
17 wrong. Maybe that book -- maybe 980 and 981 lay it all out and  
18 it is in evidence.

19 Number two. The final pretrial order did not  
20 identify this as an issue.

21 Number three. If we do get into it on a one-by-one  
22 basis, then we get into the ownership problem that Mr. Baber  
23 has raised.

24 I'm not ruling on any of these points. I just -- let  
25 me just make sure.

1           Mr. Baber, am I correct that if question number two  
2 is dropped and we go with question number one, that the  
3 ownership issue evaporates?

4           **MR. BABER:** No, your Honor. We have the same issue  
5 on the copied files in question three. Those would have --  
6 that's file-by-file also.

7           **THE COURT:** But on question one is that on solid  
8 ownership grounds.

9           **MR. BABER:** It is on solid ownership grounds, yes.  
10 Anything that relates to the whole platform, that cuts down  
11 solid ownership grounds.

12           **THE COURT:** You had also raised the ownership issue  
13 as to the individual files.

14           **MR. BABER:** And as to documentation as well. The  
15 English language that's inside those packages, I don't see how  
16 they can sue to say, well, your description of this method is  
17 too similar to ours, if they don't own the language in the  
18 individual package that they're talking about.

19           So I think this ownership issue affects everything  
20 other than question one.

21           **THE COURT:** All right. Well, I think this is far too  
22 important for me to make any kind of indication, but I urge  
23 counsel to pay attention to it and if you feel you need to  
24 reopen on this, you still have some time. You have got more  
25 than an hour left. Not much, an hour and 15 minutes or so, 16

1 minutes. So, but there we are.

2 Anything more before we break.

3 **MR. BABER:** Your Honor, just so we're clear.

4 I don't want Mr. Jacobs to say I hadn't argued this  
5 before. The issue about ownership we just discussed, that  
6 relates to questions two and three.

7 The other issues we raised in our JMOL, which came up  
8 this morning about the certified copies, is whether or not they  
9 have even proven what the work is. If they don't do that, they  
10 have no copyright at all and question one goes out as well.

11 It's just a failure of proof to have any witness come  
12 in and testify that what's in any of these discs in the  
13 courtroom is, in fact, the work as it was back when the  
14 application was submitted. They can probably do that, you  
15 know -- I don't know what witness they would have, but  
16 presumably they would have somebody who can come in and testify  
17 to that.

18 But we don't yet have any evidence in the record that  
19 all this code people have been looking at, the witness said,  
20 "Yeah, this is 5.0 and this is 1.4," but no witness has said,  
21 "This is how it was back then when it was registered." It has  
22 to be that work to be connected with the registration.

23 **MR. JACOBS:** I think we have the title on the  
24 copyright registration, your Honor.

25 **THE COURT:** Why wouldn't the title be enough?

1           **MR. BABER:** Because, your Honor, they have title to  
2 the registration, but they still have to prove in evidence what  
3 is the work that is the subject of the registration.

4           **THE COURT:** Well, I don't mean title as in deed. I  
5 mean title as in name.

6           **MR. BABER:** As in the name of it? Because we know  
7 from the way this thing has developed over the years, the same  
8 version of 5.0 platform had changes. Things were done to it  
9 between 5.0 and 5.1 and other versions, and it should be a  
10 fairly simple matter.

11           If they have somebody who can testify there only ever  
12 was one thing called 5.0, that should do it. It shouldn't be  
13 much. It's just, you know, nuts and bolts --

14           **THE COURT:** Mr. Baber is raising this point. Now,  
15 was this point reserved in the pretrial order?

16           **MR. BABER:** Yes, your Honor. That's the ownership  
17 question you looked at this morning. It's not in the statement  
18 of legal issues. It's -- Google identified as two fact issues,  
19 the second one was about ownership.

20           **THE COURT:** All right. I need to change the subject.  
21 I forgot that as the jury was leaving they gave -- one of them  
22 handed us a note, which I haven't even read yet, so I'll read  
23 it to you.

24           "Professor Astrachan" --

25           (Professor Astrachan raises his hand)

1           **THE COURT:** It's kind of like the title of the note,  
2 it's called. I don't think that's a salutation.

3           (Laughter.)

4           **THE COURT:** (As read)

5           "Profession Astrachan. Did he say the  
6 specification says what code to write in the  
7 implementation? If so, why would there be a  
8 thing such as proprietary code?"

9           I'll read it again.

10          "Did he say the specification says what code  
11 to write in the implementation? If so, why  
12 would there be such a thing as proprietary  
13 code?"

14          It's a pretty good question.

15          **MR. VAN NEST:** Very good.

16          **THE COURT:** All right. I will leave this up here on  
17 the witness stand and you can look at it and when you're done  
18 you can put it on Dawn's desk.

19          Anything more today?

20          **MR. VAN NEST:** No, your Honor.

21          **MR. JACOBS:** Very briefly, your Honor.

22          Could we have clarity on what reports Dr. Astrachan  
23 is speaking to in this testimony?

24          **MR. BABER:** That's an excellent point. He's speaking  
25 to his first and second reports.

1           Just so -- let me explain how we did that. You know,  
2 we had the burden of proof issue. His first report addressed  
3 issues where we, even arguably, might have the burden or proof,  
4 including things bearing on copyrightability and fair use.  
5 That was his first report.

6           His second report was in response to Professor  
7 Mitchell's opening report on infringement. So I think  
8 that's --

9           **THE COURT:** So he's on both of those.

10          **MR. BABER:** He's on both of those.

11          **THE COURT:** Is that all right with you?

12          **MR. JACOBS:** That sounds logical, your Honor.

13          **THE COURT:** All right, good. See you tomorrow.

14          (Whereupon at 2:18 p.m. further proceedings  
15 in the above-entitled cause was adjourned  
16 until Friday, April 27, 2012 at 7:30 a.m.)

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Debra L. Pas, CSR #11916, RMR CRR

Thursday, April 26, 2012

*Katherine Powell Sullivan, CSR, CRR, RPR  
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